



EASTERN RESEARCH GROUP, INC.

M E M O R A N D U M

TO: George Smith, U.S. Environmental Protection Agency

FROM: Chad White, Eastern Research Group

DATE: March 26, 1997

SUBJECT: Final Summary of March 11, 1997, Incinerator Work Group Meeting

1.0 INTRODUCTION AND PURPOSE OF MEETING

The March 11 meeting was the fifth meeting of the Incinerator Work Group for the Industrial Combustion Coordinated Rulemaking (ICCR). The purpose of this meeting was to discuss tasks delegated to the Work Group by the Coordinating Committee, to receive reports from the Work Group's subgroups, and to discuss a plan of action for investigating and addressing categories of incinerators.

2.0 LOCATION AND DATE

This Work Group meeting was held from 9:00 am until 4:00 pm on March 11, 1997, in Orlando, Florida, at the Hampton Inn near Orlando International Airport. A copy of the draft meeting agenda is included as attachment 1.

3.0 ATTENDEES

The Incinerator Work Group meeting was open to the public. Participants at the meeting included representatives of the EPA, industry, State and local governments, and the environmental community. A copy of the attendance list for the meeting is included as attachment 2. A copy of the Incinerator Work Group membership list is included as attachment 3.

4.0 DISCUSSION

After brief introductions, the Work Group received reports from the Coordinating Committee, the Combined Survey Task Group, and the Incinerator Work Group Scope Subgroup. Pursuant to these reports, the Work Group discussed the information collection request (ICR), the Scope Subgroup's recommendations, and a plan of action for investigating categories of incinerators. These discussion topics are summarized in the sections that follow.

4.1 Changes to the Coordinating Committee Meeting Format

Fred Porter of the EPA provided a brief report about the Coordinating Committee background and progress.

4.1.1 ICCR Background

To help orient new ICCR participants, Mr. Porter explained that the ICCR was conceptualized as a way to get stakeholders involved in the regulatory development process earlier than has been done in the past. In addition, the ICCR is designed to help leverage resources among EPA and stakeholders during regulatory development. Mr. Porter emphasized that EPA, like any other organization involved in the ICCR, is one of many participants and should not be expected to take the lead on all tasks.

Mr. Porter reviewed that the ICCR regulations are aimed at stationary sources and are being developed under EPA authority from Clean Air Act sections 111, 112, and 129. Mr. Porter encouraged all participants to obtain and read a copy of the ICCR document, developed by the Coordinating Committee as a blueprint for the ICCR process. This document, like many other ICCR materials, is available off the TTN (www.ttn.rtpnc.epa.gov).

4.1.2 Coordinating Committee Report

Mr. Porter stated that the Coordinating Committee has been examining how to make the best use of its meeting time and to

facilitate the best interaction between the Coordinating Committee and the Work Groups. Their findings are summarized in attachment 4. One potential improvement may be to reschedule Coordinating Committee meetings for Tuesdays and Wednesdays so that Work Groups can meet immediately after the meetings on Thursdays. This topic has been scheduled as a issue for discussion at the March 19 and 20, 1997, Coordinating Committee meeting.

The Coordinating Committee has determined that receiving full status reports from each Work Group may not be the best use of Coordinating Committee meeting time. Therefore, to provide more opportunity to consider thoughtfully what the Work Groups are recommending, the Coordinating Committee has requested that each Work Group prepare and post status reports on the TTN one week prior to Coordinating Committee meetings. Work Groups will continue to provide reports at the Coordinating Committee meetings, but these reports will be used to request Coordinating Committee answers to Work Group questions instead of briefing the Coordinating Committee about Work Group progress.

4.2 Combined Survey Task Group Report

At its January 8 and 9, 1997 meeting, the Coordinating Committee formed an Information Collection Subgroup to coordinate data gathering among the Source Work Groups. After examining the data in EPA's ICCR database, the Information Collection Subgroup determined that enough information is available that only a survey focused on waste (i.e., non-fossil fuel) combustion in boilers, process heaters, and incinerators is needed. As a result of this limited scope of information collection, the Information Collection Subgroup decided to form a Combined Survey Task Group, which would consist of members of the Boiler, Process Heater, and Incinerator Work Groups.

The Combined Survey Task Group was responsible for developing the survey to collect all necessary data. The Task Group was also charged with recommending the sources in the ICCR database to survey. At the January 30 meeting Dennis Marietta, Paul Rahill, Andy Roth, George Smith and Joe Tessitore volunteered to be members of the Combined Survey Task Group. At this meeting the Combined Survey Task Group reported back to the Work Group with its progress.

4.2.1 Combined Survey Task Group Report

Andy Roth of the Regional Air Pollution Control Agency in Dayton, Ohio presented the recommended survey form to the Work Group and explained the questions in each section of it. Copies of the survey form and instructions are included as attachment 5. To supplement the combined survey task form, EPA provided a copy of a memo outlining the ICR recipients (attachment 6). The ICR recipient memo was presented but not discussed at the meeting.

4.2.2 Work Group Comments

Two members of the Information Collection Subgroup, Norman Morrow and Dick Van Frank, who are also members of the Incinerator Work Group and Coordinating Committee, were selected to present the survey form for approval at the March 19 and 20 Coordinating Committee meeting. Mr. Morrow explained that, at its January meeting, the Coordinating Committee authorized the Information Collection Subgroup to make any necessary decisions during development of the coordinated information collection plan (ICP). For this reason, the Information Collection Subgroup expects quick approval of the ICP from the Coordinating Committee and has been provided only one hour on the March meeting agenda to present its recommendations.

Mr. Morrow and Mr. Van Frank, along with Jim Eddinger of U.S. EPA, will be incorporating comments received about the

survey and will be preparing a final draft prior to the Coordinating Committee meeting. Having just been briefed on the recommendations from the Combined Survey Task Group, the Work Group members were provided an opportunity to comment on the survey form.

John Ramsey asked why the 2-phase information collection plan is not being implemented as discussed at the December 17, 1996, Incinerator Work Group meeting. Andy Roth responded that the Information Collection Subgroup decided to use a "targeted Phase I" approach based on the facilities known in the ICCR database. The second phase of information collection will be used to collect HAP emission test data from Phase I responses.

John Ramsey suggested that using the word "solid" may be confusing to the individuals filling out the survey. Mr. Ramsey suggested that, if the word "solid" is going to be used to refer to combustion of solid material, a definition of solid waste be included with the survey.

Jeff Shumaker commented that wood should be considered fuel and not a waste.

David Marrack commented on the omission of cyanide as a potential waste being burned, the omission of a request for permit limits, and the omission of the impacts of health costs. Dr. Marrack also suggested that what crematories burn should not be considered pathological waste and should be treated separately. In addition, Dr. Marrack commented that international units of measurement should be used for emission comparisons.

Tom Tyler commented that "metals recovery" is not listed as a separate category for incinerators but should be. Mr. Tyler also commented that question 6 in Part II, which requests a listing of fuels and wastes burned, would be difficult for operators at metal recovery plants to answer because material fed to the devices is not considered a fuel or a waste. Mr. Tyler

offered to help refine the question to address this concern. In addition, Mr. Tyler and Andy Roth, noticing a discrepancy between the intention of the questions and their ordering, recommended rearranging the questions in Part III so that question 4 is listed after questions 5 and 6.

Tony Licata, concerned that the word "export" in the definition of a boiler describes movement across a facility's borders, suggested that the use of the word "exporting" in enclosure 5 is technically incorrect and recommended that it be removed. The Work Group decided that this definition, which is consistent with what was accepted by the Boiler, Process Heater, and Incinerator Work Groups at their combined meeting on November 7, 1996, should not be changed.

Ruth Mahr suggested that there should be a question addressing the changes in emissions from start-up and shut-down in a facility's daily operation.

Larry Doucet commented that, based on his experience from the hazardous waste incinerator regulatory development project, he had sent EPA a list of recommended codes and sorting options. He agreed to forward another of these recommendations to Mr. Morrow and Mr. Van Frank for further consideration.

Bob Morris asked that all documents, such as the survey form distributed at the meeting, be stamped with the date of distribution.

4.3 Scope of the Incinerator Source Category

According to the Coordinating Committee charge, each Work Group is responsible for recommending to the Coordinating Committee the scope of its source category. At the January 30 meeting Tony Licata, Jeff Shumaker, George Smith, and Bill Wiley volunteered to be members of a Scope Subgroup, which was formed to document the arguments for those units that should be of lower priority or should be addressed by the EPA under other

rulemakings. At this meeting the Scope Subgroup reported back to the Work Group with its recommendations and the Work Group discussed the scope of the incinerator category.

4.3.1 Scope Subgroup Report

Tony Licata reviewed the draft document prepared by the Scope Subgroup (see attachment 7) and explained that this document describes the subgroup's preliminary findings and recommendations. Mr. Licata highlighted the primary recommendations:

- that no size cut-off for the incinerator category be developed prior to information collection; and
- that only "uncontained" or process gas combustion for gases containing halogenated and/or metallic compounds be assigned a priority status for the ICCR.

Mr. Licata pointed out that the Scope Subgroup's intent was to ensure that EPA examines all units that are HAP sources but commented that "in-process" units, such as wire reclamation units, need to be examined further to determine their proper placement in the ICCR. George Smith agreed and commented that the document presented by the Scope Subgroup is only preliminary and does not represent approval or recommendation from any of the organizations who drafted it.

The Work Group reached consensus on the recommendations presented by the Scope Subgroup.

4.3.2 Work Group Comments

Fred Porter of EPA responded to questions of EPA's addressing landfill flares in the ICCR instead of during development of the Municipal Solid Waste Landfills MACT standard. Mr. Porter explained that the focus of the Emission Standards Division (ESD) regulatory development group charged with developing a NESHAP for municipal solid waste landfills is to determine 1) whether emissions from these landfills should be

controlled and 2) how these emissions should be controlled, not what emissions result from the combustion of landfill gas. It may be appropriate to examine landfill gas combustion as part of the ICCR. Mr. Porter also commented that installation of a combustion device as a control device does not exempt that unit from regulation by EPA.

Todd Eckert questioned the logic of recommendations 1-A and 2-A in the Scope Subgroup's draft document. Under the first recommendation, the subgroup appears to suggest that process gas not be considered if it is "uncontained," but under the second recommendation the subgroup recommends considering process gas containing halogenated or metallic compounds. Leslye Fraser of EPA's Office of General Council explained that the recommendations are responding to different section 129 and section 112 issues. Depending on the definition of a "solid waste," "uncontained gas" may not be regulated under section 129. However, HAP emissions from process gas combustion could still be considered under section 112.

John Ramsey asked what test methods are available for evaluating the emissions from combustion devices such as flares and asked if the testing of flares should be referred to the Testing and Monitoring Protocol Work Group for examination. Norman Morrow responded that several years ago Exxon conducted research on flares and believes that assumptions can be made about the combustion emissions based on the constituents of the feed streams.

Dick Van Frank asked whether combustion units functioning as control devices are covered by the regulations that require them. Mr. Van Frank also asked how the emissions from such units were considered during previous regulatory development projects. Norman Morrow, who has worked with previous MACT standard development projects, explained that the indirect effects of the

control device are considered as debits and credits to the overall emissions from the emission source being controlled.

In response on the subgroup's recommendations, Norman Morrow asked if the survey form needs to be expanded to include questions about flare usage. Tony Licata also asked if other methods besides surveying are being considered to collect information on flares. Fred Porter responded that EPA understood that the Information Collection Subgroup decided to incorporate questions on flares into the survey; information on other units burning process gases (e.g., turbines) is being collected without a survey. Mr. Porter also noted that the survey will not necessarily collect all data (e.g., emission data) but will attempt to identify data other than facility information that may be useful later during regulatory development.

4.4 Investigation of Incinerator Groupings

Norman Morrow and Fred Porter explained the need to begin investigating the incinerators in the ICCR database on a unit-by-unit basis. Mr. Porter emphasized that, once data have been compiled in the ICCR database, the Work Group needs to conduct several activities:

- check to quality of the data in the database;
- determine how to group incinerators in categories of like units; and
- examine the incinerator groupings to develop a refined scope and appropriate prioritization for incinerators to be considered by the Work Group as a part of the ICCR.

To conduct these activities, Work Group members will need access to the ICCR database. After this brief introduction, the Work Group was presented information and discussed grouping incinerators into categories.

Fred Porter emphasized that, based on the groupings, the Work Group must decide which incinerators will be the focus of

its attention. The incinerator groupings and associated prioritizations will not affect the recipient list for the ICR.

4.4.1 Presentation on Grouping of Incinerators

Chad White of Eastern Research Group presented some initial groupings of incinerators in EPA's ICCR database¹ for Work Group consideration. Copies of the materials from this presentation are included as attachment 8.

The first ten pages of attachment 8² contain tables designed to address the question, "Should this group of units be an ICCR priority for the Incinerator Work Group?" Based on preliminary evaluation of the incinerators in the ICCR database, equipment source classification codes (SCCs) were categorized according to a possible priority status. Items in the "No" table are the subject of other EPA rulemakings or were misclassified and should be considered by other Work Groups. Items in the "Yes" table appear to fit the definition of other solid waste incinerator (OSWI) or industrial-commercial waste incinerator (ICWI) and should be considered by the Incinerator Work Group. Items in the "Maybe" table, which could potentially be moved to another MACT category, and items in the "Unknown" table should remain in the ICCR unless the Work Group develops rationales for excluding them. These tables represent only preliminary suggestions and are not recommendations from EPA.

¹Version 1 of EPA's ICCR database was released in January of 1997 and consisted solely of a merging of the Aerometric Information Retrieval System (AIRS) and Ozone Transport Assessment Group (OTAG) databases. Version 2 of the database, scheduled for release at the end of March, will consist of a merging of the AIRS and OTAG databases with several State databases and the OSWI-ICWI inventory previously developed by EPA.

²The TTN version of this document does not contain these pages of attachment 8. The file YES-NO.XLS, which is available in the same location on the TTN as this meeting summary, contains these pages.

Beginning on page eleven of attachment 8³ are graphs that show the distribution of the incinerators in the ICCR database according to grouping and population. The data used to create the graph on page twelve were taken from the ICCR database. The number of units was totaled by the SCC groupings in the list beginning on page thirteen⁴. This list of SCC groupings provides a starting point for identifying incinerators in the ICCR database that fall into certain incinerator groupings.

4.4.2 Work Group Comments

Jeff Shumaker suggested that the Work Group should move away from using SCCs to label the incinerators in the ICCR database. Mr. Shumaker mentioned standard industrial classifications (SICs) as a possible alternative but recognized that using SICs could be troublesome as well.

Several members of the Work Group commented on their relative lack of experience with Microsoft Access as a database program. Several members of the Work Group mentioned that they do not currently have access to this software. EPA representatives acknowledged these comments and encouraged all Work Group members to investigate their opportunities to acquire this software. However, Fred Porter commented that EPA should not be viewed as the Microsoft Access experts and should not be expected to provide training or assistance for use of the ICCR database. Training ICCR participants on the software would use up EPA's ICCR resources.

³The TTN version of this document does not contain these pages of attachment 8. The file GRAPHS.XLS, which is available in the same location on the TTN as this meeting summary, contains these pages.

⁴The TTN version of this document does not contain these pages of attachment 8. The file SCCGROUP.XLS, which is available in the same location on the TTN as this meeting summary, contains these pages.

4.4.3 Formation of Subteams

Based on preliminary groupings of incinerators from the presentation (see section 4.4.1), the Work Group decided to form subteams, which are charged to begin examining the incinerators in the ICCR database in a line-by-line fashion. This examination will consist of two actions: 1) quality assurance and quality control of the data in the database, and 2) grouping incinerators into categories based on their similarities in industry, materials burned, incinerator design, etc. The subteams will also need to examine the units in the ICCR database to reorganize the initial groupings and ensure that no units should be recategorized for consideration by another Work Group (e.g., pass any boilers identified to the Boiler Work Group for consideration).

The Work Group established the following subteams (the subteam leaders are denoted with an asterisk by their names):

- Subteam 1 (to consider pathological, crematory, and pharmaceutical incinerators) consists of Todd Eckert, Ruth Mahr, David Marrack, Paul Rahill*, and Dale Walter.
- Subteam 2 (to consider petroleum, chemical, fume/odor control, process gas, and plastics incinerators) consists of Larry Faith, Bob Morris*, and Norman Morrow.
- Subteam 3 (to consider wood and paper incinerators as well as various types of ovens) consists of Dave Maddox, Dennis Marietta*, Raimund Mueller, Bill Perdue, and Jeff Shumaker.
- Subteam 4 (to consider metal industry incinerators) consists of Brian Dittberner, Ross Ragland, Andy Roth*, Joe Tessitore, and Tom Tyler.
- Subteam 5 (to consider fiberglass, concrete and landfill gas incineration as well as municipal waste combustion) consists of Tony Licata, John Ramsey, Bill Wiley, Dick Van Frank, and representatives of EPA*.

In addition, all subteams must examine and identify units applicable to their interests from the "other" and "sludge" categories.

4.5 Work Group Status Report

The Work Group agreed that the meeting flash minutes will serve as a Work Group status report and will be posted to the TTN in advance of the Coordinating Committee meeting.

5.0 ACTION ITEMS

Dick Van Frank, in consultation with Todd Eckert, will investigate meeting locations in Indianapolis, Indiana for the July meeting. Tony Licata will also investigate meeting locations in Pittsburgh, Pennsylvania.

George Smith and Fred Porter EPA will contact tire recycling associations and municipal waste landfill associations to seek interested parties to become involved in the ICCR.

Each Work Group member will investigate the availability of Microsoft Access software for examining the ICCR database.

6.0 NEXT MEETINGS

The Work Group agreed to change its 1997 meeting schedule to the following:

- March 21, 2pm EST: teleconference for subteam leaders (but open to all who wish to attend); George Smith will arrange for a dial-in number.
- April 23, 12pm-5pm EST: Work Group teleconference to discuss actions items from the Coordinating Committee meeting on March 19 and 20.
- May 8, 9am-4pm EST: Work Group meeting to be held in Research Triangle Park, North Carolina
- June 4: Work Group meeting to be held in Research Triangle Park, North Carolina
- July 15: Work Group meeting (no location chosen)

ATTACHMENTS

- Attachment 1: Draft Meeting Agenda
- Attachment 2: Meeting Attenders
- Attachment 3: Incinerator Work Group Membership List
- Attachment 4: *Improving Coordinating Committee Meetings*
Memorandum
- Attachment 5: Combustion Unit Survey and Instructions
- Attachment 6: Description of ICR Recipients
- Attachment 7: Scope Subgroup Recommendations
- Attachment 8: Presentation Material about Categories of
Incinerators in the ICCR Database

Attachment 1: Draft Meeting Agenda

INCINERATOR WORK GROUP MEETING

March 11, 1997; 9am-4pm

Hampton Inn; Orlando, Florida

9:00-9:10am	INTRODUCTION AND WELCOME
9:10-9:30am	COORDINATING COMMITTEE REPORT <ul style="list-style-type: none">• Changes to meeting format• Review of agenda for March 19 and 20 meeting
9:30-10:25am	REPORT FROM THE COMBINED SURVEY TASK GROUP AND DISCUSSION OF INFORMATION COLLECTION REQUEST (D. Marietta, P. Rahill, A. Roth, J. Tessitore)
10:25-10:35am	BREAK
10:35-11:30am	REPORT FROM THE SCOPE SUBGROUP AND DISCUSSION OF SUBGROUP RECOMMENDATIONS (T. Licata, J. Shumaker, G. Smith, B. Wiley)
11:30-12:30pm	LUNCH
12:30-1:00pm	PRESENTATION ON CATEGORIES OF INCINERATORS IN THE ICCR DATABASE (C. White, ERG)
1:00-2:30pm	DISCUSSION OF A PLAN OF ACTION TO ADDRESS CATEGORIES OF INCINERATORS
2:30-2:40pm	BREAK
2:40-3:30pm	PREPARATION OF A STATUS REPORT FOR THE COORDINATING COMMITTEE AND FOR POSTING TO THE TTN
3:30-3:45pm	NEXT MEETINGS
3:45-4:00pm	APPROVAL OF FLASH MINUTES

Attachment 2: Meeting Attendees

Name	Affiliation
Brian Dittberner	United Group, Inc.
Larry Doucet	Doucet & Mainka, PC
Todd Eckert	Eli Lilly & Company
Larry Faith	Shell Oil Company
Leslye Fraser	U.S. EPA/OGC
John Huyler	The Keystone Center
Mary Lalley	Eastern Research Group, Inc.
Tony Licata	Licata Energy and Environmental Consultants
Dennis Marietta	La-Z-Boy Chair Company
Dave Maddox	Stanley Furniture Company, Inc.
Ruth Mahr	environmental interests
David Marrack	Galveston-Houston Association for Smog Prevention
Norman Morrow	Exxon Chemical Americas
Bob Morris	The Coastal Corporation
Raimund Mueller	Siemens Power Corporation
Bill Perdue	Pulaski Furniture Company, Inc.
Fred Porter	U.S. EPA/OAQPS
Ross Ragland	United Group, Inc.
Paul Rahill	Industrial Equipment and Engineering Company
John Ramsey	Kansas Department of Health and Environment
Andrew Roth	Regional Air Pollution Control Agency (Dayton, Ohio)
Kay Rykowski	Harding Lawson Associates
Jeff Shumaker	International Paper
George Smith	U.S. EPA/OAQPS
Larry Thompson	Cornell University, College of Veterinary Medicine
Tom Tyler	Institute of Scrap Recycling Industries, Inc.
Dick Van Frank	National Audubon Society
Dale Walter	Industrial Equipment and Engineering Company
Chad White	Eastern Research Group, Inc.
William Wiley	Consumat Systems, Inc.

Attachment 3: Incinerator Work Group Membership List

Industrial Combustion Coordinated Rulemaking
Incinerator Work Group Membership
as of February 5, 1997 (25 Members, 1 Alternate)

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Note: Stakeholder Co-Chair is to be determined

Attachment 4: *Improving Coordinating Committee Meetings*
Memorandum

Below I have included a slightly different version of the "Improving CC Meetings" memo that Fred Porter forwarded to you on Wednesday, February 19. The document was revised to incorporate helpful suggestions from Fred.

M E M O R A N D U M

To: ICCR Coordinating Committee

From: Todd Barker and John Huyler

Subject: Improving Coordinating Committee Meetings

Date: February 21, 1997

We would like to thank everyone who responded to our January 21 email requesting input on ways for improving Coordinating Committee meetings. We believe that your suggestions and insights will make our future meetings more productive and meaningful. Below we have identified several suggestions that we believe can be implemented at future Coordinating Committee meetings, beginning with the March meeting in Chicago.

For those questions which Coordinating Committee (CC) members responded to, we have identified our question, a non-attributional summary of the CC members' responses, and our recommendations.

Question:

Given the full agendas during recent two-day meetings and the fact that our agendas will probably get fuller, we invited your thoughts about our two day meetings. If more time is needed, would you prefer a) to meet more than quarterly, b) to meet during the evening between the two days if necessary, or c) schedule an extra half day or full day when necessary? Or, can increased efficiency make the difference?

Responses:

One Committee member noted that the CC is already meeting more than quarterly and that meeting more frequently was not realistic. While once CC member suggested scheduling longer meetings, most CC members preferred keeping two day meetings. If necessary, these CC members suggested using a subset of the CC to meet in the evenings to address specific topics. One CC member noted that some CC members may be doing other work in the evenings and unavailable for evening sessions.

Most of the CC members who responded said that the efficiency of meetings could be increased if meeting materials were posted to the TTN at least one week before the meetings and if CC meetings contained fewer presentations. These CC members believe that most presentations at previous meetings would have been unneeded if material was sent out in advance. A few CC members suggested that the agenda and materials for CC meetings should be sent out in advance of the CC meetings and include key questions for each section of the agenda. By identifying these questions in advance of the meeting, CC members could be better prepared to engage in productive discussions at meetings. One CC member said that CC members should be requested to contact Keystone or EPA with concerns about the materials sent in advance of the meeting as a means of focusing discussion.

One CC member noted that providing materials in advance of the meetings was difficult because of the frequent nature of CC meetings and because Workgroups often meet the day before CC

meetings as a means of reducing travel costs and time expenditure. This CC member suggested that the Workgroups be requested to meet the day after CC meetings.

Recommendation:

Based on this input, we suggest trying to keep meetings to two days and using evening sessions, only as necessary, to address specific topics. These evening sessions would most likely involve only a subset of CC members who would make recommendations to the full CC for discussion the following day. Only in extremely rare situations should 2 1/2 or 3 day meetings be considered.

Furthermore, every effort should be made to provide materials for the CC meetings at least one week in advance of the meetings. We believe that this should be a goal and not a procedural groundrule that would in any way prohibit discussion of last minutes items or agenda topics for which it was not possible to post materials one week in advance of the meeting. Presentations should be limited to the greatest extent possible and the assumption made that CC members will "do their homework" if they have it enough in advance. The agenda should identify key questions for each agenda item. If possible, CC members should contact Keystone or EPA in advance of CC meetings to identify possible concerns with specific agenda topics.

At the March 18 meeting, the CC should discuss whether CC meetings should be moved to Tuesdays and Wednesdays rather than Wednesdays and Thursdays so that Workgroups could, if those choose, meet on Thursdays and avoid having to travel Friday evenings and/or Saturdays. The CC should discuss whether they want to recommend that Workgroups meet as soon as possible after CC meetings so that any direction and guidance from the CC can be acted on in a timely manner (note: the CC is scheduled to meet approximately every 8 weeks).

Question:

Given the full agendas during the last two meetings day meetings and the fact that they will probably only get fuller, we invite your thoughts about how to best deal in the future with topics that are raised in discussion but are not central to the agenda topic of the moment. For example, should we be more systematic about identifying topics to return to later? If so, what mechanisms could be used to fairly allocate time during that plenary or a future plenary to "parked" topics?

Responses:

Some CC members responded that we should be more systematic about identifying important coordination issues that are placed in the "parking lot." These important coordination issues and Workgroup requests should be allocated time and resolved, if at all possible.

Recommendations:

Keystone will build time into the agendas for important coordination issues and workgroup requests that are identified or raised at the meeting (as opposed to before the meeting). In addition, with the CC assistance, we will identify the important issues which are placed in the "parking lot" and those which can be addressed outside of the CC meeting or at a future meeting. One method of issue allocation would be for an ad hoc group to assist Keystone in prioritizing and consolidating issues during the evening between the two meeting days.

Question:

Given the full agendas during the last two full-day meetings and the fact that they will probably only get fuller, we invite your thoughts about our style of facilitation. For example, should we make a practice of pushing people for "possible solutions" when they identify problems or issues during our plenary discussions?

Or, is there a better technique than using "raised cards" to allocate speaking time fairly?

Responses:

Several CC members suggested that Keystone push people more often for possible solutions. While some CC members liked the raised cards, others disliked the system but could not think of a better approach. One CC member suggested that members assist the facilitators by deferring as a matter of courtesy to other CC members if they are aware that their card had been placed up first.

Recommendations:

Keystone will push people more often for solutions, particularly when you raise concerns or new issues. Keystone will continue to use the "raised cards" approach for allocating speaking time, but request all CC members assistance by deferring to other CC members if you are aware that their card had been placed up before yours.

In Conclusion:

Keystone and EPA are particularly grateful to those of you who took the time to forward your ideas. Keystone will continue to invite critique and suggestions both formally and informally. Please continue to talk with us so that, together, we may make this inherently complicated and somewhat cumbersome process as efficient and productive as possible for everyone.

Attachment 5: Combustion Unit Survey and Instructions

This attachment contains the survey form and its supporting instructions and summary sheet.

Combustion Unit Survey Form

Part I. Facility Information

1. Facility Name, ID No. and
Physical Address

(attach label or pre-print)

2. Corrections to Name or Physical Address:

(name)

(street)

(city)

(state)

(zip)

3. Facility Contact Name

Phone Number

____ - ____ - ____ ext. ____

Fax Number

____ - ____ - ____

4. Name of Legal Owner of Facility -----

5.a. Number of Facility Employees

☐ 0-100

☐ 100-250

☐ 251-500

☐ 501-750

☐ 751-1,000

☐ 1,001-1,500

☐ >1,500

b. Is the legal owner a small business?

☐ yes

☐ no

☐ unknown

6. SIC(s)

primary

--	--	--	--	--

secondary

--	--	--	--	--

tertiary

--	--	--	--	--

7. For combustion devices that burn, fire, combust, or destroy only 100% fossil fuel, indicate those for which HAP emission test data are available:

Boiler

Process Heater

Gas Turbine

Stationary IC Engine

☐

☐

☐

☐

8. For combustion devices that burn, fire, combust, or destroy other than 100% fossil fuel, indicate those for which HAP emission test data are available:

Boiler

Process Heater

Gas Turbine

Stationary IC Engine

☐

☐

☐

☐

If all of your combustion devices burn, fire, combust, or destroy only 100% FOSSIL FUEL, STOP HERE and return this form.

If all of your combustion devices burn, fire, combust, or destroy only fossil fuels and the materials listed in ENCLOSURE 6, STOP HERE and return this form.

If ANYTHING OTHER THAN FOSSIL FUEL and the materials listed in ENCLOSURE 6 is burned, fired, combusted, or destroyed in a boiler, process heater, or incinerator, PLEASE CONTINUE.

Part II. Combustion Device Information

Photocopy this section as needed to complete the following for each incinerator, boiler and process heater that burns, fires, combusts or destroys anything other than 100% fossil fuels. **NOTE: The generation of new data is not required.**

1. Combustion Device Type (indicate one, see instructions for detailed definitions)

Boiler Process Heater Incinerator
☐ ☐ ☐

2. General Information

Manufacturer	_____	Year Installed	19		
Model No.	_____	Year of Most Recent Modification	19		

3. Design Capacity

(fill in boxes corresponding to appropriate units)

				MMBtu/hr					gpm of _____
				1000 lb steam/hr					tons per day of _____
				other: _____					

4. Operating Parameters

a. Typical number of hours operated per year:

--	--	--	--

b. Typical operating rate (expressed as % of design):

☐ 0-20 ☐ 20-40 ☐ 40-60
☐ 60-80 ☐ 80-100 ☐ >100

c. Maximum operating rate (expressed as % of design):

☐ 0-20 ☐ 20-40 ☐ 40-60
☐ 60-80 ☐ 80-100 ☐ >100

d. Is the operation seasonal? ☐ yes ☐ no

If yes, provide the number of months operated per year:

--	--

5. Description

a. Boilers (indicate all that apply)

- | | | | |
|---------------------------------------|---|--|--------------------------------------|
| <input type="radio"/> Field-erected | <input type="radio"/> Moving Grate Stoker | <input type="radio"/> Semi-suspension | <input type="radio"/> Natural Draft |
| <input type="radio"/> Package | <input type="radio"/> Spreader Stoker | <input type="radio"/> Full suspension | <input type="radio"/> Forced Draft |
| <input type="radio"/> Water tube | <input type="radio"/> Vibratory Stoker | <input type="radio"/> Wet Bottom | <input type="radio"/> Induced Draft |
| <input type="radio"/> Fire tube | <input type="radio"/> Circulating Fluidized Bed | <input type="radio"/> Dry Bottom | <input type="radio"/> Balanced Draft |
| <input type="radio"/> Dutch Oven | <input type="radio"/> Bubbling Fluidized Bed | <input type="radio"/> Wall-Fired | <input type="radio"/> Air Preheat |
| <input type="radio"/> Coil Tube | <input type="radio"/> Mass Feed | <input type="radio"/> Tangentially-Fired | <input type="radio"/> other: _____ |
| <input type="radio"/> Cell Type | <input type="radio"/> Pneumatically fed | <input type="radio"/> Cyclone-Fired | _____ |
| <input type="radio"/> Pulverized Coal | <input type="radio"/> Under Feed | | |

5. Description (continued)

b. Process Heater (select one description)

indirect-fired,
heats a process stream

☐

direct-fired,
heats a process stream

☐

indirect-fired,
heats a heat transfer medium

☐

c. Incinerator (indicate all that apply)

☐ burn-off oven

☐ spreader stoker

☐ multi-chamber

☐ single batch fed

☐ crematory

☐ moving grate

☐ excess air

☐ intermittent batch fed

☐ rotary device

☐ single chamber

☐ starved air

☐ continuously fed

☐ other: _____

6. Fuels and Wastes Combusted

- a. List each fuel and waste combusted using the attached codes. Provide the percentage of annual heat input corresponding to each fuel or waste. Indicate the type of usage (primary, startup, etc.), and whether the fuel or waste is co-fired. Attach an analysis or description for any non-fossil fuel material combusted, if available. Indicate that an analysis or description has been provided.

Fuel or Waste ID Code	% of Annual Input	Primary	Startup	Standby	Supple- mental	Co-fired	Analysis/ Description Attached
<div></div>	<div></div>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<div></div>	<div></div>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<div></div>	<div></div>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<div></div>	<div></div>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<div></div>	<div></div>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

b. Does the fuel/waste mix change significantly from summer to winter? ☐ yes ☐ no

c. Do fuel/waste firing rates change significantly from summer to winter? ☐ yes ☐ no

d. Do any of the non-fossil fuel materials listed above contain the following?

heavy metals ☐ yes ☐ no

chlorinated compounds ☐ yes ☐ no

radioactive materials ☐ yes ☐ no

- e. If PG (process coproduct gas), PL (process coproduct liquid), AQ (aqueous waste), IS (industrial sludge), IW (industrial solid waste), PS (process coproduct solid), TW (treated wood), OG (other gas), OL (other liquid), or OS (other solid) are listed in 6a, please provide a brief description.

Code	Description
<div></div>	_____
<div></div>	_____
<div></div>	_____

7. Control Device or Technique

Provide the following information for each device or technique that controls emissions. Use the numeric codes provided in Enclosure 8.

Type	Year Installed	Manufacturer	Model No.	Shared?	
	19			<input type="radio"/> yes	<input type="radio"/> no
	19			<input type="radio"/> yes	<input type="radio"/> no
	19			<input type="radio"/> yes	<input type="radio"/> no

8. Available Emission Test Data

Indicate the fuel/waste/pollutant combinations for which emission test data are available. Use the fuel/waste ID codes from question 6.

	Test 1	Test 2	Test 3	Test 4
Fuel/Waste ID Code	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Fuel/Waste ID Code	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Fuel/Waste ID Code	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Year of Test (19__)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Acetaldehyde	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Benzene	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cadmium	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Carbon Monoxide	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dioxins	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Formaldehyde	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hydrogen Chloride	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lead	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Methanol	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mercury	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nitrogen Oxides	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Polynuclear Aromatic Hydrocarbons	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Particulate Matter	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sodium Dioxide	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Volatile Organic Compounds	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other HAPs:				
-----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
-----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Part III. Economics

1. For the units covered in Part II of this survey, approximately what percent of the heat is recovered and used productively?
 - ☐ less than 5 percent
 - ☐ 5 to 30 percent
 - ☐ Don't Know
 - ☐ 31 to 60 percent
 - ☐ No heat is recovered (skip to 4)
 - ☐ greater than 60 percent
2. a. What percent of the heat recovered is used onsite?
 - ☐ less than 5 percent
 - ☐ 5 to 30 percent
 - ☐ 60 to 99 percent
 - ☐ 31 to 60 percent
 - ☐ 100 percent
 - ☐ Don't Know
 b. Approximately what percent of your total annual energy need is met by the heat that is recovered and used onsite from the units covered in Part II of this survey?
 - ☐ less than 5 percent
 - ☐ 5 to 30 percent
 - ☐ greater than 60 percent
 - ☐ 31 to 60 percent
 - ☐ Don't Know
3. What percentage of the heat recovered is used to produce steam or electricity to be sold offsite?
 - ☐ less than 5 percent
 - ☐ 5 to 30 percent
 - ☐ greater than 60 percent
 - ☐ 31 to 60 percent
 - ☐ No heat is recovered (skip to 4)
4. If you did not burn the non-fossil fuel material or waste in your incinerator(s), process heater(s) or boiler(s), what would be the most likely alternative use or disposal method? (*check all that apply*)
 - ☐ dispose on-site
 - ☐ dispose through local trash collection
 - ☐ contract for special disposal service
 - ☐ other: _____
 - ☐ send to a landfill off-site
 - ☐ sell as a product
 - ☐ sell as a fuel
 - ☐ vent to atmosphere
 - ☐ waste water treatment plant
 - ☐ no other alternative currently available
 - ☐ don't know
5. If you did not burn the non-fossil fuel material or waste in your incinerator(s), process heater(s) or boiler(s), how would you compensate for the lost heating value?
 - ☐ burn a fossil fuel such as coal, oil, or gas in the same units
 - ☐ buy new equipment capable of burning another fuel
6. Which of the SICs listed in question 6 of Part I (on the first page) most accurately represent the primary activity or manufacturing process in which these incinerator(s), process heater(s), or boiler(s) are involved?

SIC:

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☐ None

If none of the SICs accurately represent the process or activity in which these units are involved, provide a brief description of the process or activity in which they are involved: _____

OVERVIEW OF COMBUSTION UNIT SURVEY INSTRUCTIONS

Pages 1-4

BACKGROUND, PURPOSE, BURDEN ESTIMATE, EPA'S AUTHORITY, CBI

Pages 4-5

GENERAL INSTRUCTIONS

I-1 & I-2

INSTRUCTIONS FOR PART I FACILITY INFORMATION

II-1, II-2, II-3

INSTRUCTIONS FOR PART II COMBUSTION DEVICE INFORMATION

III-3

INSTRUCTIONS FOR PART III ECONOMICS

ENCLOSURE 1

EPA's Information Gathering Authority Under Section 114

ENCLOSURE 2

Description of Emission Data (can not be claimed CBI)

ENCLOSURE 3

Designation of Authority

ENCLOSURE 4

Procedures for Safeguarding CBI

ENCLOSURE 5

DEFINITIONS

boiler, incinerator, process heater municipal/commercial solid waste types 0-3

primary purpose primary, startup, standby, supplemental, co-fired

ENCLOSURE 6

MATERIALS NOT OF INTEREST

bagasse	coke	refinery process gas	propane
butane	lpg	petrochemical process gas	spent pulping liquors

ENCLOSURE 7

FUEL/WASTE CODES

ENCLOSURE 8

CONTROL DEVICE AND TECHNIQUE CODES

Form Approved _____
OMB Control No. _____ - _____
Approval Expires ____/____/____

INDUSTRIAL COMBUSTION COORDINATED RULEMAKING
QUESTIONNAIRE

BACKGROUND

Under Sections 111, 112 and 129 of the Clean Air Act (the Act), the EPA is required to develop or review regulations for a variety of combustion sources. An effort is currently underway to address the requirements of the Act simultaneously for a variety of combustion sources. The EPA is soliciting data from the owners and operators of the combustion sources in order to complete the analyses needed to establish and review regulations. Section 112 of the Act requires that the EPA establish national emission standards for hazardous air pollutants (NESHAP) for the following source categories:

- Industrial Boilers
- Commercial/Institutional Boilers
- Process Heaters
- Stationary Internal Combustion Engines
- Stationary Gas Turbines

Additionally, section 129 of the Act requires the EPA to develop new source performance standards and Emissions Guidelines (NSPS and EG) for the following source categories:

- Industrial/Commercial Solid Waste Incineration
- Other Solid Waste Combustion

Furthermore, existing NSPS regulations developed under section 111 affecting some of these source categories are periodically reviewed and revised. At minimum, EPA is required

to promulgate seven regulations under sections 112 or 129, and may promulgate additional regulations under section 111.

The pollutants that will possibly be regulated by these standards include:

- Hazardous air pollutants(section 112);
- PM (total and fine), opacity, SO₂, HCl, NO_x, CO, lead, cadmium, mercury, and dioxins and furans (section 129);
- SO₂, NO_x, and PM (section 111).

In order to minimize the burden to respondents, the EPA limited this survey to request only information that can not be obtained through alternate sources. The survey requests general information on the type of test data available for the combustion devices discussed previously and specific information regarding boilers, process heaters and incinerators that burn non-fossil fuel materials for which sufficient information is not available.

PURPOSE OF SURVEY

The purpose of this survey is to obtain information concerning the availability of test data for combustion devices and the population of boilers, process heaters and incinerators that combust materials other than fossil fuels. The survey requests general information concerning your facility and HAP emission test data availability. Also requested is specific design, operation, fuel, and control device information for boilers, process heaters and incinerators that combust non-fossil fuel materials for which current data sources are limited.

The information provided will be used to develop model combustion devices and model facilities which will be used to determine the maximum achievable control technology (MACT) floor, identify regulatory alternatives (control options) more stringent than the floor, and estimate the emission reduction, cost, economic, and other impacts of the alternatives. The impacts

estimates are the basis for making regulatory decisions regarding which regulatory alternative to propose.

BURDEN ESTIMATE

Preliminary estimates of the public burden associated with this information collection effort indicate an average burden of 15 hours per facility. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions, search data sources, validate and process information, complete and review forms, and transmit or otherwise disclose the information. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, OPPE Regulatory Information Division, U.S. Environmental Protection Agency (2137), 401 M St., S.W., Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed questionnaire to this address.

EPA'S AUTHORITY TO COLLECT INFORMATION AND HANDLING OF CONFIDENTIAL BUSINESS INFORMATION

The EPA's authority to gather information is presented in section 114 of the CAA, as amended, (42 U.S.C. 7414). Enclosure 1 contains a summary of this authority. You should also be aware that any failure to comply with our information request is a violation of section 114, and as such is subject to enforcement under section 113 [specifically, 113(d)(1)(B)] of the CAA, which provides civil penalties of up to \$25,000 per day of violation.

If you believe that disclosure of specific information that you submit would reveal a trade secret, clearly identify such specific information. Please do not label an entire response "confidential" if only certain portions contain trade secret information. Refer to Enclosure 1 for the information the EPA may require, at a later time, to support your confidentiality claims. Any information subsequently determined to constitute a trade secret will be protected under 18 U.S.C. 1905. If no claim of confidentiality accompanies the information when it is received by the EPA, it may be made available to the public by the EPA without further notice (40 CFR part 2.203, September 1, 1976). This survey does not request actual emission data, but it asks whether you have emission test data. At a later time, EPA may contact you to obtain such data. Because section 114(c) of the CAA exempts emission data from claims of confidentiality, the emission data you provide may be made available to the public. A clarification of what the EPA considers to be emissions data is contained in Enclosure 2.

The EPA has contracted Eastern Research Group (ERG) (Contract No. 68-D6-0011) to obtain information pertinent to the industry. Thus, as noted in Enclosure 3, ERG has been designated by the EPA as an authorized representative of the Agency. Therefore, ERG has the rights discussed above and in Enclosure 1. Accordingly, ERG will have access to all information provided to the EPA in response to this request. As a designated representative of the Agency, ERG is subject to the provisions of 42 U.S.C. 7414(c) respecting confidentiality of methods or processes entitled to protection as trade secrets.

Enclosure 4 summarizes Agency and Emission Standards Division policies and procedures for handling privileged information and describes the EPA's contractor commitments and procedures for using confidential materials. It is the EPA's policy that compliance by an authorized representative with the

requirements detailed in Enclosure 5 provides sufficient protection for the rights of submitters of privileged information.

GENERAL INSTRUCTIONS

Please provide the information requested in the following forms. If you are unable to respond to an item as it is stated, please provide any information you believe may be related. Use additional copies of the questionnaire forms for your responses, if necessary. **Only existing data are being requested. The generation of new data, additional monitoring, or emission testing is not required by your company to respond to this questionnaire.**

If you believe the disclosure of the information requested would compromise a trade secret, clearly identify such information. Please do not label the entire response confidential if only certain portions contain trade secret information.

The following forms are to be completed:

- Part I - General Facility Information: one for the entire facility
- Part II - Combustion Device Information: one for each boiler, process heaters, or incineration unit that burns, fires, combusts, or destroys materials other than 100 percent fossil fuel. Definitions of boilers, process heaters, and waste incineration units are provided in Enclosure 6.
- Part III - Economics: one for the entire facility.

When a facility has multiple identical combustion devices for which all of the Part II form information is the same, it is acceptable to complete only one Part II form and indicate all combustion devices to which it applies under "Combustion Device ID No." Detailed instructions for each form follow.

Questions regarding this information request should be directed to Mr. Jim Eddinger at (919) 541-5426 or Mr. Bill Maxwell at (919) 541-5430. *[Should we provide a hotline number that rings at ERG?]*

Return the completed questionnaire and any additional information to:

EPA - Combustion Survey
Post Office Box _____
City, NC _____

Attention : Bruce Jordan, Director

Part I
Facility Information
Instructions

Complete one Part I form for the facility. Only existing data are being requested. The generation of new data, additional monitoring, or emission testing is not required by your company to respond to this questionnaire.

1. Facility Name, ID No., and Physical Address - the name and physical address (location) of your facility has been pre-printed on your survey form.
2. Corrections to Name or Physical Address - do not complete if the name and physical address in question 1 is correct
3. Facility Contact - provide the name, phone number, and fax number of a facility contact who can answer questions regarding the responses to this survey
4. Name of Legal Owner of Facility
5. a. Number of Facility Employees - indicate the equivalent number of full-time employees at the facility

b. Is the legal owner a small business? Fill in the "yes" circle if you know that the legal owner is considered a small business. Fill in the "no" circle if you know that the legal owner is not considered a small business. If uncertain, fill in the "unknown" circle.
6. SIC - provide the code for the primary, secondary, and tertiary Standard Industrial Classification that applies to the facility. A list of SIC codes is available in the 1987 Standard Industrial Classification Manual.
7. This question applies only to combustion devices that combust only 100 percent fossil fuel. Indicate the equipment type(s) for which you have available hazardous air pollutant (HAP) emission test data. Check all that apply. Definitions for boilers and process heaters are included in Enclosure 6.
8. This question applies only to combustion devices that burn, fire, combust, or destroy anything other than 100

percent fossil fuel. Indicate the equipment type(s) for which you have available HAP emission test data. Check all that apply. Definitions for boilers and process heaters are included in Enclosure 6.

If all of the combustion devices at your facility burn, fire, combust, or destroy only 100 percent fossil fuel, do not complete Parts II and III. Return the completed Part I form to the address provided.

If all of the combustion devices at your facility burn, fire, combust, or destroy only fossil fuels and/or the materials listed in Enclosure 6, do not complete Parts II and III. Return the completed Part I form to the address provided.

If any boiler, process heater, or incinerator at your facility burns, fires, combusts, or destroys anything other than fossil fuel and the materials listed in Enclosure 6, continue with Part II.

Part II
Combustion Device Information
Instructions

Photocopy this section as needed to complete one Part II form for each incinerator, boiler, and process heater that burns, fires, combusts or destroys anything other than fossil fuels and the materials listed in Enclosure 6.

Only existing data are being requested. The generation of new data, additional monitoring, or emission testing is not required by your company to respond to this questionnaire.

Fill-in the Facility ID No. (From Part I, question 1) and the Combustion Device ID No. (assigned by the facility) at the top of each page.

1. Combustion Device Type - The name given to a combustion device type may vary between industries and facilities. Refer to the definitions in Enclosure 3 to determine the correct device type.
2. Manufacturer, Model No., Year Installed - self-explanatory

Year of Most Recent Modification - Provide the year of the most recent modification to the combustion device. A modification is defined as any physical change in, or change in the method of operation of, an existing facility which increases the amount of any air pollutant (to which a standard applies) emitted into the atmosphere by that facility or which results in the emission of any air pollutant (to which a standard applies) into the atmosphere not previously emitted.

3. Design Capacity - provide the unit's design capacity using the most appropriate or available units. This may be listed on the combustion device or included in the manufacturer's specifications. Fill in the boxes preceding the appropriate units. If providing capacity in gpm or tons per day, fill in the appropriate blanks to complete the units. If design capacity is in units other than those listed, provide the capacity in the boxes preceding the "other" box and fill in the units.
4. Operating Parameters
 - a. Typical number of hours operated per year - self-explanatory

- b. Typical operating rate - expressed as a percentage of the design rate provided in question 3. If typical operating rate exceeds design rate, indicate "> 100".
- c. Maximum operating rate - expressed as a percentage of the design rate provided in question 3. If maximum operating rate exceeds design rate, indicate "> 100".
- d. Is operational seasonal? If unit does not typically run year-round, fill in the circle for "yes" and provide the typical number of months per year that the unit is operated. Otherwise, fill in circle for "no".

5. Description

- a. Boilers - indicate all that apply

Many boilers will require a number of descriptors to fully characterize the equipment. Examples of descriptions that could apply to one boiler:

- Field-erected, water tube, pulverized coal, dry bottom, tangentially-fired, balance draft, air preheat; or
- Package, fire tube, forced draft; or
- Field-erected, water tube, moving grate stoker, balanced draft; or
- Package, water tube, forced draft.

- b. Process Heaters - select one
- c. Incinerators - indicate all that apply

6. Fuels and Wastes Combusted

- a. List each fuel and waste combusted in the unit using the codes provided in Enclosure 7. Include both fossil and non-fossil fuels. Provide the percentage of annual heat input corresponding to each fuel/waste. Indicate the type of usage (primary, startup, etc.), and whether the fuel/waste is co-fired. Definitions for usage types and co-fired are provided in Enclosure 5. For any non-fossil fuel material, attach a sample analysis or description that provides an

indication of the composition of the material, if available. Indicate that an analysis or description has been provided.

- b. Does the fuel/waste mixture change significantly from summer to winter? Fill in the "yes" circle if the relative amounts of materials change significantly from summer to winter.
- c. Do fuel/waste firing rates change significantly from summer to winter? Fill in the "yes" circle if the firing rates of materials change significantly from summer to winter.
- d. Do any of the non-fossil fuel materials listed above contain the following? Fill in the "yes" circle for all that apply.
- e. If PG (process coproduct gas), PL (process coproduct liquid), AQ (aqueous waste), IW (industrial solid waste), IS (industrial sludge), PS (process coproduct solid), TW (treated wood), OG (other gas), OL (other liquid), or OS (other solid) are listed in 6a, please provide a brief description. These codes may apply to a wide variety of materials. If any of these codes are used, a brief description is requested. Please provide a brief description of the materials listed even if a description or analysis is attached in response to question 6a.

7. Control Device or Technique

Indicate the devices and techniques used to control emissions from the combustion unit. Use the numeric codes provided in Enclosure 8. Provide the requested information for each control device or technique. Use the attached numerical control device codes. Fill in the "yes" circle in the "Shared?" column for any control device that controls emissions from units in addition to the one for which the Part II form is completed.

8. Available Emission Test Data

This question applies only to the boiler, process heater, or incinerator for which the Part II form is completed. Indicate the fuel/waste/pollutant combinations for which emission test data are available. It is possible to provide information for

four different combinations of materials burned (Test 1-4). For each test, indicate the fuels and wastes (up to three) being combusted using the fuel/waste ID codes from question 6. List the fuel that comprised the greatest percent of the heat input first. Indicate the pollutants for which test data are available. Provide the year in which the testing was done. Write in any hazardous air pollutants (HAPs) tested for but not on the list provided.

Part III
Economics
Instructions

Complete one Part III form for the facility. Fill in the Facility ID No. (from Part I, question 1) at the top of the page. All questions refer to the heat recovered from combustion devices for which a Part II form was completed. In answering the questions, consider the total heat recovered by all of the units for which a Part II form was completed.

Example response for question 6:

A school that uses heat from an incinerator to heat classrooms fills in Part III, question 6 and the primary SIC in Part I, question 6 with SIC 8211 (elementary and secondary schools). A manufacturer of wood household furniture fills in the primary SIC in Part I, question 6 with 2511, but fills in the "None" circle in Part III, question 6 and writes in: " The heat from the incinerator at the facility is involved in producing foam products."

ENCLOSURE 1

EPA's Information Gathering Authority Under Section 114 of the Clean Air Act

Under Section 114 of the Act (42 U.S.C. 7414), Congress has given the U.S. Environmental Protection Agency broad authority to secure information needed "(a) for the purpose (i) of developing or assisting in the development of any implementation plan under Section 110 or 111(d), any standard of performance under Section 111, or any emission standard under Section 112 (ii) of determining whether any person is in violation of any such standard or any requirement of such a plan, or (iii) carrying out any provision of this Act." Among other things, Section 114 authorizes EPA to make inspections, conduct tests, examine records, and require owners or operators of emission sources to submit information reasonably required for the purpose of developing such standards. In addition, the EPA Office of General Counsel has interpreted Section 114 to include authority to photograph or require submission of photographs of pertinent equipment, emissions, or both.

Under Section 114, EPA is empowered to obtain information described by that section even if you consider it to be confidential. You may, however, request that EPA treat such information as confidential. Information obtained under Section 114 and covered by such a request will ordinarily be released to the public only if EPA determines that the information is not entitled to confidential treatment.⁵ Procedures to be used for making confidentiality determinations, substantive criteria to be used in such determinations, and special rules governing information obtained under Section 114 are set forth in 40 CFR part 2 published in the Federal Register on September 1, 1976 (40 Fed. Reg. 36902).

Pursuant to §2.204(a) of EPA's Freedom of Information Act (FOIA) regulation, in the event a request is received, or it is

⁵Section 114 requires public availability of all emission data and authorizes disclosure of confidential information in certain circumstances. See 40 Fed. Reg. 36902-36912 (September 1, 1976).

determined that a request is likely to be received, or EPA desires to determine whether business information in its possession is entitled to confidential treatment even though no request for release of the information has been received, please be advised that EPA will seek, at that time, the following information to support your claim as required by §2.204(e)(4) of EPA's FOIA regulations:

1. Measures taken by your company to guard against undesired disclosure of information to others;
2. The extent to which the information has been disclosed to others, and the precautions taken in connection therewith;
3. Pertinent confidentiality determinations, if any, by EPA or other Federal agencies, and a copy of any such determinations, or reference to it if available; and
4. Whether your company asserts that disclosure of the information would be likely to result in substantial harmful effects on the business' competitive position, and if so, what those harmful effects would be, why they should be viewed as substantial, and an explanation of the causal relationship between disclosure and such harmful effects.

ENCLOSURE 2

7042 Federal Register / Vol 56. No. 35 / Thursday, February 21, 1991 / Notices

Dated: February 14, 1991.
Paul Lapsley,
Director, Regulatory
Management Division.
[FR Doc 91-4113 Filed 2-20-
91; 8:45 am]
BILLING CODE 8580-50-M

[AD-FRL-3008-3]

Disclosure of Emission Data
Claimed as Confidential Under
Sections 110 and 114(c) of
the Clean Air Act

AGENCY: Environmental
Protection Agency (EPA).
ACTION: Notice of policy on
public release of certain
emission data submitted under
sections 110 and 114(c) of
the Clean Air Act (CAA).

SUMMARY: Section 114(c) of
the CAA excludes emission
data from the general
definition of trade secret
information. Certain classes
of data submitted to the EPA
under sections 110 and 114(a)
of the CAA are emission data,
and, as such, cannot be
withheld from disclosure as
confidential pursuant to
section 1905 of title 18 of
the United States Code. This
notice clarifies EPA's
current policy, and solicits
comment regarding that policy
and categories of data which
it considers excluded from
trade secret definition.

DATES: Written comments
pertaining to this notice are
requested by April 22, 1991.
ADDRESSES: Submit comments
to: Nancy D. Riley,
U.S. Environmental Protection
Agency, Emission Standards
Division, Pollutant
Assessment Branch (MD-13),
Research Triangle Park, NC
27711.

FOR FURTHER INFORMATION
CONTACT: Timothy Mohin
(telephone: (919) 541-5349
commercial/FTS 629-5349) or
Karen Blanchard (telephone:
(919) 541-5503 commercial/FTS
629-5503), Pollutant

Assessment Branch (MD-13),
Emission Standards Division;
or Thomas Rosendahl
(telephone: (919) 541-5404
commercial/FTS 629-5404),
National Air Data Branch
(MD-14), Technical Support
Division; U.S. Environmental
Protection Agency, Research
Triangle Park, North Carolina
27711.

SUPPLEMENTARY INFORMATION:
The EPA routinely uses the
authority of sections 110 and
114(a) of the CAA to gather
technical information from
industries involved in
operations that lead to
emissions of pollutants to
the ambient air. This
information has been used,
among other things, to better
characterize emitting
facilities and to evaluate
the need for and impacts of
potential regulation.

Information requests under
sections 110 and 114(a) of
the CAA typically include
questions on uncontrolled and
controlled emission rates and
emission parameters of the
pollutant or group of
pollutants of concern. The
respondents sometimes claim
that its response constitutes
trade secret information, and
thus, should be treated as
confidential. Claims of
confidentiality may be made
under section 114(c) of the
CAA, which states "* * * upon
a showing satisfactory to the
Administrator by any person
that records, reports, or
information, or a particular
part thereof, (other than
emission data) to which the
Administrator has access
under this section if made
public, would divulge methods
or processes entitled to
protection as trade secrets
of such person, the
Administrator shall consider
such * * * confidential in
accordance with the purposes
of section 1905 of title 18
of the United States Code * *
*." If the Administrator so
determines, the information

is not disclosable to the
public.

However, section 114(c) of
the CAA provides that
information claimed to be a
trade secret but which
constitutes emission data may
not be withheld as
confidential. Although
typically the EPA evaluates
whether information
constitutes emission data on
a case-by-case basis, it
believes that some kinds of
data will always constitute
emission data within the
meaning of section 114(c).
The purpose of this notice is
to describe, without
attempting to be
comprehensive, that
information which the EPA
generally considers to be
emission data, and which
cannot qualify as
confidential under either
section 114(c) or section 110
(as set forth in 41 CFR
51.321, 51.322, and 51.323)
of the CAA. The EPA is
issuing this notice to
clarify its policy and
procedures, to facilitate the
use of these data in
automated data systems and
computer-based simulation
models, and to expedite
processing of claims for
confidentiality or requests
for disclosure.

The EPA presently
determines that data
submitted to it as emission
data does not qualify as
confidential if it meets the
following definition under 40
CFR 2.301(a)(2)(i):

a. Definitions. For the
purpose of this section, (1)
Act means the Clean Air Act,
as amended, 42 U.S.C. 7401
et seq. (2)(i) *Emission data*
means, with reference to any
source of emission of any
substance into the air—

(A) Information necessary
to determine the identity,
amount, frequency,
concentration, or other
characteristics (to the
extent related to air
quality) of any emission

which has been emitted by the source (or of any pollutant resulting from any emission by the source), or any combination of the foregoing:

(B) Information necessary to determine the identity, amount, frequency, concentration, or other characteristics (to the extent related to air quality) of the emission which, under an applicable standard or limitation, the source was authorized to emit (including, to the extent necessary for such purposes, a description of the manner or rate of operation of the source), or any combination of the foregoing.

(C) A general description of the location and/or nature of the source to the extent necessary to identify the source and to distinguish it from other sources (including, to the extent necessary for such purposes, a description of the device, installation, or operation constituting the source).

The table below lists the specific data fields which the EPA presently considers to constitute emission data and provides a brief description of what each data field describes. The descriptions are intended to provide general information. This list is not exhaustive, and, therefore, other data might be found, in a proper case, to constitute emission data.

Emission Data Fields

Facility Identification:
The following data fields are needed to establish the identity and location of emission sources. This shall also include a description or an identifier of the device, installation, or operation constituting the source. These data are used to locate sources for dispersion evaluation and exposure modeling.
Plant Name and related point identifiers
Address

City
County
AQCR (Air Quality Control Region)
MSA, PMSA, CMSA (Metropolitan Statistical Areas)
State
Zip Code
Ownership and point of contact information
Locational Identifiers:
Latitude & Longitude, or UTM Grid Coordinate
SIC (Standard Industrial Classification)
Emission point, device or operation description information
SCC (Source Classification Codes)
Emission Parameters: The following data fields are needed to establish the characteristics of the emissions. This information is needed for the analyses of dispersion and potential control equipment.
Emission type
(e.g., nature of emissions such as CO₂), particulate or a specific toxic compound, and origin of emissions such as process vents, storage tanks or equipment leaks)
Emission rate
(e.g., the amount released to the atmosphere over time such as kg/yr or lbs/yr)
Release height
(e.g., height above ground level where the pollutant is emitted to the atmosphere)
Description of terrain and surrounding structures
(e.g., the size of the area associated with adjacent structures in square meters and terrain descriptions such as mountainous, urban, or rural)
Stack or vent diameter at point of emissions
(e.g., the inside diameter of vent at the point of emissions to the atmosphere in meters)
Release velocity
(e.g., velocity of release in m/sec)
Release temperature

(e.g., temperature of release at point of release in degrees Kelvin)
Frequency of release
(e.g., how often a release occurs in events per year)
Duration of release
(e.g., the time associated with a release to the atmosphere)
Concentration
(e.g., the amount of an emission stream constituent relative to other stream constituents expressed as parts per million (ppm), volume percent, or weight percent)
Density of the emissions stream or average molecular weight
(e.g., density expressed as fraction or multiple of the density of air: molecular weight in g/g-mole)
Boiler or process design capacity
(e.g., the gross heating value of fuel input to a boiler at its maximum design rate)
Emission estimation method
(e.g., the method by which an emission estimate has been calculated such as material balance, source test, use of AP-42 emission factors, etc.)
Percent space heat
(e.g., the percent of fuel used for space heating)
Hourly maximum design rate
(e.g., the greatest operating rate that would be expected for a source in a 1-hour period)

The EPA has determined that these data are emission data and releasable upon request. This determination applies to data currently held by EPA as well as to information submitted to EPA in the future. Future requests for information under sections 110 and 114 of the CAA will indicate that these emission data will not be held confidential. This determination applies only to

the data listed in the table.
Determinations will continue
to be made on a case-by-case
basis for data not specified
in this generic
determination.

After consideration of
comments on this policy, a
revised policy/ determination
may be published.

ENCLOSURE 3

DESIGNATION OF AUTHORIZED REPRESENTATIVE
FOR STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES
(SECTION 111) AND SOLID WASTE COMBUSTION (SECTION 129),
NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS
(SECTION 112), AND FEDERAL OZONE MEASURES (SECTION 183)

Under contract 68D10117, Eastern Research Group (ERG), Inc. (prime contractor) and Alpha Gamma Technologies, Inc. (subcontractor) are hereby designated Authorized Representatives of the Administrator of the United States Environmental Protection Agency for the purpose of assisting in the development of national emission standards for hazardous air pollutants under 42 U.S.C. 7411, standards of performance under 42 U.S.C. 7511 (b).

This designation is made pursuant to the Clean Air Act, 42, U.S.C. 7414. The United States Code provides that, upon presentation of this credential, the Authorized Representative named herein: (1) shall have a right of entry to, upon, or through any premises in which an emission source is located or in which records required to be maintained under 42 U.S.C. 7414 (a) (1), are located, and (2) may at reasonable times have access to and copy any records, inspect any monitoring equipment or method required under 42 U.S.C. 7414 (a) (1), and sample any emissions that the owner or operator of such source is required to sample.

Authorized Representatives of the Administrator are subject to the provisions of 42 U.S.C. 7414 (c) respecting confidentiality of methods or processes entitled to protection as trade secrets, as implemented by 40 CFR 2.301 (h) (41 FR 36912, September 1, 1976).

Date:

Designation Expires: December 31, 1996

John S. Seitz
Director
Office of Air Quality Planning
and Standards

December 1995

Summary of OAQPS
Procedures for Safeguarding Clean Air Act (CAA)
Confidential Business Information (CBI)

1. Purpose

This memorandum describes Agency policy and procedures pertaining to the handling and safeguarding of information that may be entitled to confidential treatment for reasons of business confidentiality by the OAQPS, Office of Air and Radiation, U.S. Environmental Protection Agency.

2. Other Applicable Documents:

- a. Clean Air Act as amended.
- b. 40 CFR, Chapter 1, Part 2, Subpart B - Confidentiality of Business Information.
- c. EPA Security Manual, Part II, Chapters 8 and 9.
- d. Clean Air Act Confidential Business Information Security Manual (June 1995 edition).

3. Exception:

This document was prepared as a summary of data gathering and handling procedures used by the OAQPS, EPA. Nothing in this document shall be construed as superseding or being in conflict with any applicable regulations, statutes, or policies to which EPA is subject.

4. Definition:

Confidential Business Information - Information claimed by the provider to be confidential. This information may be identified with such titles as trade secret, secret, administrative secret, company secret, secret proprietary, privileged, administrative confidential, company confidential, confidential proprietary, or proprietary. **NOTE:** These markings should not be confused with the classification markings of National Security information identified in Executive Order 11652.

5. Background

Section 114 (c) of the Clean Air Act as amended reads as follows:

“Any records, reports, or information obtained under subsection (a) shall be available to the public, except that upon a showing satisfactory to the Administrator by any person that records, reports, or information, or particular part thereof, (other than emission data) to which the Administrator has access under this section if made public, would divulge methods or processes entitled to protection as trade secrets of such person, the Administrator shall consider such records, report, or information or particular portion thereof confidential in accordance with the purposes of Section 1905 of Title 18 of the United States Code, except that such record, report, or information may be disclosed to other officers, employees, or authorized representatives of the United States concerned with carrying out this Act or when relevant in any proceeding under this Act.”

The treatment of CBI by the U.S. EPA, including data obtained under Section 114 of the Clean Air Act, is governed by Title 40, Part 2, of the Code of Federal Regulations. These regulations require EPA offices to include a notice with each request for information to inform the business of: (1) its right to assert a claim of confidentiality covering part or all of the information, (2) the method for asserting a claim, and (3) the effect of failure to assert a claim at time of submission. In addition, the regulations: (1) set forth procedures for the safeguarding of confidential information; (2) contain provisions for providing confidential information to authorize representatives; (3) contain provisions for the release of information to the Congress, Comptroller General, other Federal agencies, State and local governments, and Courts; (4) permit the disclosure of information within EPA to employees with an official need for the information; and (5) prohibit wrongful use of such information and cite penalties for wrongful disclosure. Further, the regulations contain the Agency’s basic rule concerning the treatment of requests for information under the Freedom of Information Act (5 U.S.C. 552).

6. Procedures:

a. Request for Information

Each request for information made under the provisions of Section 114(a) is signed by the Division Director. The request includes standard enclosure “EPA’s Information Gathering Authority Under Section 114 of the Clean Air Act,” which was designed to meet the requirement of 40 CFR Part 2 discussed above.

b. Receipt of CAA Confidential Business Information

Upon receipt of information for which confidential treatment has been requested, the Office of the Director (OD) directs the logging of the material and the establishment of a permanent file. If confidential treatment is requested, but is not specifically marked, the material will be stamped "Subject to Confidentiality Claim." If part of the material is claimed to be confidential, that portion is marked "Subject to Confidentiality Claim." In compliance with Sections 2.204 and 2.208 of 40 CFR Part 2, the Group Leader responsible for the requested information reviews the information to determine whether it is likely to be confidential in contrast to being available in the open literature, whether it is emission data, and whether it likely provides its holder with a competitive advantage. If the information is clearly not confidential, the Group Leader prepares a letter for signature of the Division Director, ESD, to notify the business of this finding. If the information is possibly confidential, the Group Leader sends a memorandum to inform the OD, ESD, of this finding, gives a brief description of the material (what it is, how many pages, etc.), identifies it with the correct ESD project number, and lists those persons who are authorized to have access to the information. The information and memorandum are hand carried to the OD and placed in the CBI files with the material. A record of who will see the information (Attachment A) is also filed with the folder containing the information. If CAA CBI is received from the owner via an authorized representative or a third party, the same procedure is followed, with the addition of clearly identifying the information and its source. By regulation, information for which confidential treatment is requested must be so marked or designated by the submitter. The EPA takes additional measures to ensure that the proprietary designation is uniformly indicated and immediately observable. All unmarked or undesignated information (except as noted below) is freely releasable.

c. Storage of CAA Confidential Business Information

Folders, documents, or material containing CAA CBI (as defined) shall be secured, at a minimum, in a combination-locked cabinet. Normal procedure is to secure this information in a cabinet equipped with a security bar and locked using a four-way, changeable combination padlock. In addition, the entrance door to the CBI storage room is equipped with a changeable combination simplex lock. The locked files are under the control of the OD.

Knowledge of the combinations of the locking devices is limited to the Document Control Officer (DCO) and the minimum number of persons required to effectively maintain normal business operations. Records of the locking device combination are stored elsewhere in conformance with the requirements of the EPA Security Manual.

Combinations of the locks are normally changed whenever a person with knowledge of the combinations is transferred, terminates employment, no longer authorized access, or whenever the possibility exists that the combinations may have been subject to compromise.

Files may be checked out upon confirmation that the requesting person is authorized to receive the information. All confidential files may be returned no later than 4:30 p.m. on the same

day they are removed. The intended user must sign the CBI Control Record when the file is checked out.

The individual who signs out a confidential file is responsible for its safekeeping. The file must not be left unattended. The information must not be disclosed to any non-authorized personnel.

Storage procedures for CAA CBI by an authorized representative of EPA (see Section d. below) must be, at a minimum, as secure as those established for EPA offices within OAQPS. Whenever CBI is removed from the EPA files to be transmitted to an authorized representative, notation is placed in the file indicating what information was transmitted, the date, and the recipient. The authorized representative returns a signed receipt of the DCO.

d. Access to CAA Confidential Business Information

Only authorized EPA employees may open a distribute CAA CBI.

Only employees who require and are authorized access to CAA CBI in the performance of their official duties are permitted to review documents and, upon receiving a confidential document, must sign and date the form shown in Attachment A to certify their access to the document.

The CBI files are controlled by the OD, ESD, and managed by an authorized federal employee. Access to the information is limited to those persons having a need to know in performing their official duties.

The Group Leader having primary interest in the CAA CBI provides a memorandum for the record designating those personnel who are authorized to use CBI in a program under which CBI can be requested. No person is automatically entitled to access based solely on grade, position, or security clearance. The names of persons granted access to CAA CBI are placed on the Clean Air Act CBI access list, which indicates the "specific" CBI each person is permitted to see. The Access List is reviewed and updated periodically.

Companies under contract to perform work for the EPA may be designated authorized representatives of EPA if such designation is necessary in order for the contractor to carry out the work required by the contract. As authorized representatives, contractors may be granted access to CAA CBI by the Director, ESD. The following conditions apply when it has been determined that disclosure is necessary:

(1) The contractor designated as a representative and its employees (a) may use such confidential information only for the purpose of carrying out the work required, (b) must refrain from disclosing the information to anyone other than EPA without having received from EPA prior written approval of each affected business or of an EPA legal office, and (c) must return to EPA all copies of the information (and any abstracts or excerpts therefrom) upon request or whenever the information is no longer required for the performance of the work.

(2) The authorized contractor designated as a representative must obtain a written agreement from each of its employees who will have access to the information. A copy of each employee agreement (Attachment B) must be furnished to EPA before access is permitted.

(3) The contractor designated as an authorized representative must agree that the conditions in the contract concerning the use and disclosure of CAA CBI are included for the benefit of, and shall be enforceable by, both EPA and any affected business having a proprietary interest in the information.

Information may be released to or accessed by EPA employees other than OAQPS employees only upon approval of the Director, ESD.

Requests for CAA CBI from other Federal agencies, Congress, the Comptroller General, Courts, etc., are processed by the OD, ESD in accordance with 40 CFR 2, Subpart B.

Requests under the Freedom of Information Act are handled in accordance with 40 CFR 2, Subpart A. The Freedom of Information Act Coordinator must be consulted prior to responding to any request for information if a claim of confidentiality has been asserted or if there is reason to believe that a claim might be made if the business knew release was intended.

e. Use and Disclosure of CAA Confidential Business Information

The CAA CBI as defined may not be used in publications, supporting document, memoranda, etc., that become a part of the public domain, except as provided for in 40 CFR 2 Subpart B.

The CAA CBI may not be summarized without the approval of the Group Leader responsible for the CAA CBI. Any authorized reproductions must be logged into the CAA CBI document tracking system and treated according to the same procedures applicable to the original confidential material.

The EPA generated documents or material, or extracts of information containing CAA CBI, must be stamped "Subject to Confidentiality Claim" and a cover sheet must be attached to identify the material as CBI.

f. Handling of Other Information

Reports, memoranda, documents, etc., prepared by EPA or its authorized representatives are not normally circulated outside EPA for comment or review prior to publication except in such cases as described above (6.d.3) wherein CBI is expressly included. However, because industrial-data-gathering visits, plant inspections, and source testing can involve inadvertent receipt of CAA CBI, it is the policy of OAQPS to protect all parties involved in the following manner.

Prior to or at the inception of a plant inspection, data-gathering visit, or source test, EPA or its authorized representative discusses with a responsible industry official the information sought, how it is to be used, and how it is to be protected. A copy of this summary is usually provided to the industry official being consulted.

Following an inspection, visit, or test, a trip report is prepared to include, as practicable, all information received by EPA or its authorized representative during the visit or test. The report may be prepared by either EPA or its authorized representative. The draft of that report is clearly identified, on an attached, colored cover sheet as "Confidential Pending Determination." A second copy of the draft trip report is forwarded by EPA to the responsible industry official for review. The responsible industry official is requested by cover letter to review the report, clearly mark any information considered to be confidential, and return the marked up-report to the responsible EPA employee within 2 weeks of receipt. The original draft is kept in the CBI "pending" file until the marked-up copy is returned by the business firm.

When the reviewed copy of the report, as marked by the responsible plant official, is received by EPA, information designated confidential is placed in the CBI files as described above. The original draft of the trip report is edited to delete the confidential information and to accommodate technical changes, and the trip report is issued.

2 Attachments

**CAA CONFIDENTIAL BUSINESS INFORMATION
CONTROL RECORD**

CAA CBI Form 1 (Rev. 6/95)

Attachment B

1. AUTHORIZATION FOR ACCESS TO CAA CBI CONTRACTOR EMPLOYEES		
FULL NAME	POSITION	
SSN	CONTRACTOR	
<p>It is the responsibility of each Authorizing Official* to ensure that the employees under his/her supervision who require access to CAA CBI:</p> <ol style="list-style-type: none">1. Sign the Confidentiality Agreement for EPA Employees2. Are fully informed regarding their security responsibilities for CAA CBI.3. Obtain access only to that CAA CBI required to perform their official duties.		
SIGNATURE OF AUTHORIZATION OFFICIAL*	TELEPHONE NO.	DATE
TITLE	LOCATION	
II. CONFIDENTIALITY AGREEMENT FOR CONTRACTOR EMPLOYEES		
<p>I understand that I will have access to certain Confidential Business Information submitted to EPA or its authorized representatives under the Clean Air Act (CAA). This access is granted in accordance with my official duties as an employee of the Environmental Protection Agency contractor.</p> <p>I understand that CAA CBI may not be disclosed except as authorized by CAA and Agency regulations. I understand that I am liable for a possible fine of up to \$1,000 and/or imprisonment for up to 1 year if I willfully disclose CAA CBI to any person not authorized to receive it. In addition I understand that I may be subject to disciplinary action for violation of this agreement with penalties ranging up to and including dismissal.</p> <p>I agree that I will treat any CAA CBI furnished to me as confidential and that I will follow the procedures set forth in the CAA Confidential Business Information Security Manual.</p> <p>I have read and understand these procedures.</p>		
SIGNATURE	TELEPHONE NO.	DATE
III. HAVING COMPLETE REQUIRED TRAINING AND PASSED REQUIRED TEST, THE ABOVE-NAMED EMPLOYEE IS HEREBY AUTHORIZED TO HAVE ACCESS TO CAA CBI.		
SIGNATURE CONTRACTOR/DCO	TELEPHONE NO.	DATE

ENCLOSURE 5

DEFINITIONS

Boilers, Process Heaters, and Waste Incineration Units (Part I, questions 7 and 8 and Part II, question 1)

"Boiler" means an enclosed device using controlled flame combustion and having the primary purpose of recovering and exporting thermal energy in the form of steam or hot water.

"Process Heater" means an enclosed device using controlled flame and the unit's primary purpose is to transfer heat

- a) to a process fluid, or
- b) to a process material that is not a fluid, or
- c) to a heat transfer material, instead of generating steam, and for use in a process unit.

"Waste Incineration Unit" means any unit of any facility, and the unit combusts any solid waste material, and the unit is not categorized as a boiler or process heater.

Primary purpose: The primary purpose of a combustion unit is determined based on the purpose for which the unit is being operated.

- a) if the unit is operated solely to produce steam and/or hot water, the primary purpose of the unit is to produce steam or hot water and the unit is a boiler.
- b) If the unit is operated solely to heat process streams as listed in the definition of Process Heater, the primary purpose of the unit is to heat those process streams and the unit is a process heater.
- c) If the unit is operated solely to combust a solid waste, the unit is not a boiler or a process heater.

- d) The primary purpose of a unit that is operated for more than one of the above purposes is determined based on the following:
- i) The primary purpose of the unit is to make steam or hot water and the unit is a boiler if the amount of energy recovered in the unit to generate steam or produce hot water is greater than the amount of energy transferred to process streams listed in the definition of Process Heater.
 - ii) The primary purpose of the unit is to heat process streams as listed in the definition of Process Heater and the unit is a process heater if the energy transferred to such process streams in the unit is greater than the amount of any energy recovered to generate steam or to produce hot water.

A process fluid or a process material that is not a fluid - are streams associated with and integral to a process. These streams are heated in a combustion unit to transfer energy to a process for the purpose of affecting a chemical or physical change or to maintain a condition such as a temperature or composition. Water or steam may be a process fluid; however, water used to produce steam or hot water in a combustion unit that is operated for the primary purpose of producing steam or hot water is not a process fluid. Steam or hot water used for space heating or for generation of electricity are not process fluids.

Streams associated with and integral to a process - means the streams are heated in a combustion unit that primarily operates only when the process operates.

Municipal/Commercial Solid Waste, Types 0-3 (Part II, question 6)

TYPE 0. Trash, a mixture of highly combustible waste such as paper, cardboard cartons, wood boxes, and floor sweepings for commercial and industrial activities. The mixture contains up to 10 percent by weight of plastic bags, coated paper, laminated paper, treated corrugated cardboard, oily rags, and plastic or rubber scraps. This type of waste contains 10 percent moisture and 5 percent noncombustible solids, and has a heating value of 8,500 BTU per pound as fired.

- TYPE 1. Rubbish, a mixture of combustible waste such as paper, cardboard cartons, wood scrap, foliage, and floor sweepings from domestic, commercial, and industrial activities. The mixture contains up to 20 percent by weight of restaurant type waste, but contains little or no treated paper, plastic, or rubber waste. This type of waste contains 25 percent moisture and 10 percent noncombustible solids, and has a heating value of 6,500 BTU per pound as fired.
- TYPE 2. Refuse, an approximately even mixture of rubbish and garbage by weight. This type of waste, common to apartment and residential occupancy, consists of up to 50 percent moisture and 7 percent noncombustible solids, and has a heating value of 4,300 BTU per pound as fired.
- TYPE 3. Garbage, consisting of animal and vegetable wastes from restaurants, hotels, hospitals, markets, and similar installations. This type of waste contains up to 70 percent moisture and up to 5 percent noncombustible solids, and has a heating value of 2,500 BTU per pound as fired.

Usage Types (Part II, question 6)

Primary - fuel or waste that provides the largest fraction of heat input on an annual basis.

Startup - material used for unit startup, if primary fuel is used for unit startup, both primary and startup circles should be filled-in.

Standby - used when primary fuel is not available or when primary fuel cost periodically exceeds standby fuel cost. For example, oil is burned when natural gas is curtailed.

Supplemental - used to augment the primary fuel when heat input demand exceeds the supply of primary fuel, accounts for $\leq 15\%$ of the instantaneous heat input.

Co-fired - fuel or waste is fired simultaneous with other fuel or waste, accounts for $\geq 15\%$ of the instantaneous heat input.

ENCLOSURE 6

Completion of a Part II form is not required for boilers, process heaters and incinerators that burn, fire, combust, or destroy no materials other than fossil fuels and/or the following:

- bagasse
- butane
- coke
- liquified petroleum gas (lpg)
- petrochemical manufacturing process gas
- petroleum refinery process gas
- propane
- spent pulping liquors

ENCLOSURE 7

Fuel / Waste Codes

Gas

Biogas	BG
Blast furnace gas	BF
CO gas	CO
Coke oven gas	CG
Natural gas	NG
Refinery gas	RG
Hydrogen	H2
LPG	LP
Process coproduct gas*	PG
Other Gas*	OG

Liquid

No. 2 Distillate	D2
No. 4 Fuel Oil	D4
No. 5 Fuel Oil	D5
No. 6 Residual Oil	6R
Diesel Fuel	DF
JP-8 Aviation Fuel	J8
Orimulsion	OR
Process coproduct liquid*	PL
Process engineered fuels	PF
Waste Oil	WO
Aqueous Waste*	AQ
Other Liquid*	OL

Solid

Agriculture Waste	AG
Animal Remains	AR
Bagasse	BA
Coal	
Anthracite	CA
Bituminous	CB
Sub-bituminous	CS
Lignite	CL
Construction derived waste	CW
Decorative laminate/cast polymer scrap	DL
Human Remains	HR
Industrial solid waste (non-hazardous)*	IW
Industrial sludge*	IS
Medical Waste	MW
Municipal/Commercial solid waste	
(See Enclosure 5 for a definition of each of the following)	
Type 0 -Trash	M0
Type 1 - Rubbish	M1
Type 2 - Refuse	M2
Type 3 - Garbage	M3
Peat	PE
Petroleum coke	PT
Process coproduct solid*	PS
Refuse derived fuel	RF
Tires	TI
Waste Coal	
Anthracite (culm)	AC
Bituminous (gob)	BG
Wood	
Dried milled lumber	WL
Timber	
Little bark	W?
Mostly Bark	WB
Whole Tree	WT
Adulterated Coproduct	
Plywood/particleboard/finished	PW
Treated*	TW
Other Wood*	OW
Wood composed of > 20% sander dust	SD
Other Solid*	OS

***If code is used, provide brief description in response to question 6.e.**

ENCLOSURE 8

Control Device and Technique Codes

Code	Description	Code	Description
001	Wet Scrubber - High Efficiency	051	Tray-type Gas Absorption Column
002	Wet Scrubber - Medium Efficiency	052	Spray Tower
003	Wet Scrubber - Low Efficiency	053	Venturi Scrubber
004	Gravity Collector	055	Impingement Plate Scrubber
007	Centrifugal Collector - High Efficiency	056	Dynamic Separator (Dry)
008	Centrifugal Collector - Med Efficiency	057	Dynamic Separator (Wet)
009	Centrifugal Collector - Low Efficiency	058	Mat. Or Panel Filter
010	Electrostatic Precipitator - High Efficiency	059	Metal Fabric Filter Screen
011	Electrostatic Precipitator - Medium Efficiency	063	Gravel Bed Filter
012	Electrostatic Precipitator - Low Efficiency	064	Annular Ring Filter
013	Gas Scrubber, General	066	Molecular Sieve
014	Mist Eliminator - High Velocity	067	Wet Lime Slurry Scrubbing
015	Mist Eliminator - Low Velocity	068	Alkaline Fly Ash Scrubbing
016	Fabric Filter - High Temp	069	Sodium Carbonate Scrubbing
017	Fabric Filter - Medium Temp	070	Sodium-Alkali Scrubbing
018	Fabric Filter - Low Temp	071	Fluid Bed Dry Scrubber
019	Catalytic Afterburner	221	Spray Dryer Scrubber
020	Catalytic Afterburner w/ Heat Exchanger	075	Single Cyclone
021	Direct Flame Afterburner	076	Multiple Cyclone W/O Fly Ash Reinjection
022	Direct Flame Afterburner w/ Heat Exchanger	077	Multiple Cyclone W/ Fly Reinjection
024	Modified Furnace/Burner Design	078	Baffle
025	Staged Combustion	079	Dry Electrostatic Granular Filter
026	Flue Gas Recirculation	083	Chemical Neutralization
027	Reduced Combustion - Air Preheat	084	Activated Clay Adsorption
028	Steam Or Water Injection	085	Wet Cyclonic Separator
029	Low Excess-Air Firing	086	Water Curtain
030	Fuel - Low Nitrogen Content	098	Moving Bed Dry Scrubber
032	Ammonia Injection	099	Miscellaneous Control Devices
065	Selective Catalytic Reduction	101	High Efficiency Particulate Air Filter
206	Low Nox Burners	200	Catalytic Oxidizer (for CO & VOC
209	Selective Non-Catalytic Reduction (NH ₃ or Urea Injection)	201	Duct Sorbent Injection (dry)
212	Air to Fuel Ratio Control	202	Evaporative Cooler
034	Well-Lord/Sodium Sulfur Scrubbing	203	Furnace Sorbent Injection (dry)
035	Magnesium Oxide Scrubbing	220	Wet Ionizing Scrubber
036	Dual Alkali Scrubbing		
038	Ammonia Scrubbing		
039	Catalytic Oxidation - Flue Gas Desulfurization		
042	Wet Limestone Injection		
046	Process Change		
047	Vapor Recovery System		
222	Carbon Injection		
048	Activated Carbon Adsorption		
049	Liquid Filtration System		
050	Packed-Gas Absorption Column		

Attachment 6: Description of ICR Recipients

DRAFT SURVEY TASK GROUP RECOMMENDATIONS ON SURVEY RECIPIENTS

The attached table lists non-fossil fuel fired incinerators and boilers in the ICCR database by type of waste and SIC group. The following are draft recommendations from the survey task group on whether ICCR surveys should be sent to combustors burning each type of fuel/waste for the purpose of characterizing the combusted material and developing model plants. Brief rationales for the recommendations are provided. The draft recommendations and rationales are based on discussions at the January 22 and 23 information collection subgroup meeting and the February 13 survey task group meeting.

Bagasse: A survey is not needed. Sufficient information is already available to characterize bagasse and develop model plants. There are over 120 units listed in the ICCR database: over 50 of these are also listed in the ICWI/OSWI database. Information on numbers, locations, combustor designs, capacities, and controls are available in Gilmore Sugar Manual. Control information also available on most units in ICWI/OSWI database. Waste analysis is available, according to a boiler work group member. Experts on bagasse combustion and a representative of Florida state government (where many bagasse combustors are located) are participating in the boiler work group.

Coke: A survey is not needed. Previous EPA and industry studies have analyzed coke combustion. It is a uniform type of fuel/waste. Information available is similar to that for fossil-fuel fired boilers.

Commercial solid waste: A survey is needed. The database contains very little information on the composition of this waste. Also there is very little information on unit sizes, designs, and controls.

Gases - butane, propane, liquified petroleum gas (LPG): A survey is not needed. The composition of these gases is well known. Studies have been conducted by the refineries industry. Combustion characteristics would be similar to fossil fuels. They would not be covered under section 129. They should not be a focus of the waste combustion survey efforts.

Gases - process gas: A survey is probably not needed for petrochemical industry sources, but may be needed for the metals industry. Composition of refinery process gas is well known, and some emission data are also available. However, the database also shows process gas combustion in the metals industry. We do not know the composition of these gases.

Landfill gas: A survey is probably needed, however, a decision is needed on whether the burning of landfill gas will be covered under the ICCR. The incinerator scope subgroup has drafted a preliminary memo on landfill gas combustion. If the decision is made that it will be covered under the ICCR, surveys would be sent.

Industrial sludge: A survey is needed. The database does not specify the composition of this material. The database contains little information on combustor sizes and controls.

Industrial solid waste: A survey is needed. The ICCR and ICWI/OSWI databases list this material as simply "industrial solid waste". In most cases, we do not know the specific components or composition of the waste. Little information is available on unit sizes, designs, and controls.

Liquid waste: A survey is needed. The database does not characterize the type or composition of liquids combusted. Little information is available on unit sizes, designs, and controls.

Municipal sludge: A survey is not needed. Combustion of sewage sludge is being covered under a separate MACT standard rather than under the ICCR.

Municipal solid waste: A survey is needed for small units. We will take the larger units that are covered by the Section 129 MWC standards out of the ICCR database.

Waste oil: A survey is needed. While we could make some assumptions on the composition, the database contains little information on unit sizes, designs, and controls, and the composition may vary depending on the source of the waste oil.

Other: A survey is needed. However, there are only 3 units in the ICCR database in this category.

Pathological: A survey may not be needed. The database includes many hospital combustors, so we should investigate potential overlap with the Section 129 medical waste regulation. Also, some information on pathological waste was collected by EPA during the medical waste combustion project, and additional information may be provided by manufacturers or industry associations. Crematory association representatives are participating on the incinerator work group. They may be able to provide some information to reduce the need to survey crematories.

Soil: A survey is needed. However there are only 10 units in the ICCR database and 12 in the ICWI/OSWI database. The databases do not contain information on sizes and controls for these units.

Site remediation: A survey may not be needed. These are likely hazardous waste combustors that would be regulated under the hazardous waste rules rather than the ICCR.

Solid waste: A survey is needed. The ICCR database lists over 100 units as burning solid waste. The composition of the waste is not known. There is little information on sizes, designs, and controls.

Tires: A survey is needed, however the ICCR database currently contains only one unit. Some units could be added by the state data, and some tire-burning units may be included in one of the more general solid waste categories.

Wire reclamation: A survey is probably needed. The ICCR database lists about 100 units. We currently have little information on designs, sizes, and controls for these units.

Wood - wood, mixed wood/bark, and mostly bark: A survey is needed. The database does not specify whether this is milled lumber, timber, coproducts like plywood/partical board, or treated wood. However, the wood products industry has surveyed some facilities and done some emission testing. The survey task group suggested that EPA print out the names of facilities in the database, and if some have already been or will be surveyed by the trade associations, they would not need to receive an EPA section 114 survey.

INCINERATORS AND BOILERS - NF BY SIC GROUP AND FUEL/WASTE TYPE

SIC Group	Number of UnitsTotal																											
	BA	Coke	CSW	Gas - BU	Gas - BU/PR	Gas - PG	Gas - PR	Gas LFG	Gas LPG	ISL	ISW	LW	MSL	MSW	Oil - WO	Other	Path	Soil	SR	SW	Tires	Wire Rec	Wood	Wood W?	Wood WB	Grand Total	Total # of Facilities	
I	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	5	5	
II	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	1	0	7	0	0	1	0	0	1	0	0	13	11
III	0	0	10	0	0	0	5	0	0	0	2	0	1	5	1	0	1	3	1	0	0	1	2	3	0	35	25	
IV	0	0	4	0	0	0	34	0	0	0	9	0	0	0	11	0	0	0	0	0	0	1	5	9	1	74	51	
V	0	0	8	6	0	10	52	0	0	0	61	2	1	11	6	0	0	0	0	3	0	0	961	745	94	1,960	1207	
VI	0	2	43	4	0	20	159	0	0	2	135	0	0	4	23	1	11	1	0	0	0	9	9	3	0	426	275	
VII	0	3	49	3	0	21	111	0	0	9	120	2	8	5	17	1	6	0	0	0	1	46	34	10	0	446	285	
VIII	0	0	607	3	0	13	63	0	1	0	124	0	4	36	8	1	33	0	1	2	0	17	29	22	1	965	871	
IX	0	0	128	0	0	1	9	0	0	0	29	0	0	3	0	0	0	0	0	3	0	0	8	1	0	182	174	
X	0	0	96	0	1	1	6	0	0	0	12	0	0	4	0	0	58	0	0	9	0	0	15	11	0	213	118	
XI	0	0	211	0	0	2	13	0	0	0	30	1	0	13	1	0	480	0	0	2	0	0	5	4	0	762	627	
XII	0	0	6	0	0	43	5	0	0	0	44	0	1	0	7	0	0	0	0	0	0	0	2	0	0	108	48	
XIII	1	21	23	5	0	54	45	0	0	0	19	8	3	24	56	0	11	0	0	39	0	2	66	151	21	549	290	
XV	6	0	79	0	0	62	14	5	0	12	52	0	170	458	8	0	73	0	0	36	0	0	36	12	0	1,023	662	
XVI	0	0	5	1	0	0	1	1	0	0	6	0	0	1	2	0	1	0	0	0	0	1	1	0	0	20	18	
XVII	0	0	0	0	0	4	30	0	0	0	1	0	0	0	5	0	0	0	0	0	0	0	0	2	0	42	17	
XVIII	0	0	2	2	0	0	10	0	0	0	4	1	0	0	3	0	0	0	0	0	0	1	1	0	0	24	19	
XIX	120	5	22	1	0	12	166	0	0	0	54	0	1	0	20	0	3	0	0	2	0	0	11	9	1	427	228	
XX	0	3	4	2	0	9	41	0	0	4	72	4	4	3	19	0	0	0	0	3	0	0	49	142	99	458	238	
XXI	0	0	5	0	0	0	27	0	0	0	17	0	0	4	3	0	0	0	0	0	0	0	0	0	0	56	36	
XXII	0	6	26	6	0	243	61	0	0	15	250	11	3	7	40	0	32	0	0	3	0	1	15	10	0	729	311	
XXIII	0	13	1	12	0	535	37	1	0	3	7	6	0	1	9	0	0	0	1	0	0	0	2	1	0	629	156	
XXIV	0	0	4	0	0	12	37	0	0	0	31	0	0	0	24	0	0	0	0	1	0	0	3	3	0	115	73	
XXV	0	0	0	0	0	0	17	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	1	0	22	9	
XXVI	0	7	2	1	0	4	32	0	0	0	10	0	0	0	3	0	1	0	0	0	0	0	3	2	0	65	49	
XXVII	0	17	18	1	0	293	76	0	0	0	44	2	0	0	11	0	3	0	0	0	0	21	3	1	0	490	155	
XXVIII	0	3	95	0	0	16	50	1	0	3	33	1	12	48	21	0	73	6	1	7	0	2	17	12	0	401	259	
Grand Total	127	80	1,448	47	1	1,355	1,105	8	1	48	1,171	38	208	628	299	3	793	10	4	111	1	102	1,280	1,154	217	10,239	6,217	

Attachment 3: Key to Codes Used in Table of Incinerators and Boilers by SIC Group and Fuel/Waste Type

Fuel/Waste Type Codes

Code	Fuel/Waste
BA	bagasse
Coke	coke
CSW	commercial/institutional solid waste
Gas - BU	butane
Gas - BU/PR	butane/propane
Gas - PG	process gas
Gas - PR	propane
Gas LFG	landfill gas
Gas LPG	liquefied petroleum gas
ISL	industrial sludge
ISW	industrial solid waste
LW	liquid waste
MSL	municipal sludge
MSW	municipal solid waste
Oil - WO	waste oil
Other	other (auto body components, red water from explosive manufacture, etc.)
Path	pathological/medical
Soil	soil
SR	site remediation
SW	solid waste
Tires	tires
Wire Rec	wire or electrical winding reclamation
Wood	wood
Wood W?	wood - some bark
Wood WB	wood - mostly bark

SIC GROUPS

I. PLANTS AND TREES

- 01 Agricultural Production Crops
- 07 Agricultural Services
 - except: 074 Vet services
 - 075 Animal Services (non-vet)
- 08 Forest Products
- 8422 Botanical and Zoological Gardens (no split between plants and animals)

II. ANIMALS

- 02 Agricultural Production Livestock
- 09 Fishing, Hunting, and Trapping
- 075 Animal Services (except veterinary)
- 5154 Livestock

III. CONSTRUCTION

- 15 Building Construction (residential and non-residential)
- 16 Heavy Construction (bridges, tunnels, sewers...)
- 17 Special Trade (plumbing, heating, a.c....)

IV. TEXTILES

- 22 Textile Mill Products
- 23 Apparel and Other Textile Products

V. WOOD PRODUCTS

- 24 Lumber and Non-Furniture Products
- 25 Furniture

VI. FABRICATION OF METAL PRODUCTS (large)

- 34 Fabricated Metal Products
- 35 Industrial and Commercial Machinery

VII. MISCELLANEOUS METAL & OTHER PRODUCTS

- 36 Electronic and Electrical (switches, fixtures, appliances...)
- 37 Transportation Equipment (cars, boats, trains)
- 38 Instruments and Related (analyzers, watches)
- 39 Miscellaneous Manufactured Products
- 75 Auto Repair
- 76 Miscellaneous Repair

VIII.

BUSINESS

- 50 Wholesale Trade - Durable Goods
- 51 Wholesale Trade - Non-Durable Goods
 - except: 514 Groceries & Related
 - 515 Farm Products
- 52 Building Supply, Hardware, Garden Supply, Mobile Homes Dealers
- 53 General Merchandise Stores
- 55 Automotive Dealers & Gasoline Service Stations
- 56 Apparel and Accessory Stores
- 57 Home Furniture, Furnishings, and Equipment Stores
- 59 Miscellaneous Retail
- 60 Depository Institutions
- 61 Non-Depository Credit Institutions
- 62 Security and Commodity Brokers, Dealers...
- 63 Insurance Carriers
- 64 Insurance Agents, Brokers, and Services
- 65 Real Estate
- 67 Holding and Other Investment Offices
- 72 Personal Services
 - except: 7261 Funeral Service & Crematories
- 73 Business Services
- 78 Motion Pictures
- 79 Amusement and Recreation Services
 - except: 7996 Amusement Parks
- 81 Legal Services
- 82 Educational Services
 - except: 822 Colleges and Universities
- 83 Social Services
- 84 Museums, Art Galleries, and Botanical & Zoological Gardens
 - except: 842 Botanical & Zoological Gardens
- 86 Membership Organizations
- 87 Engineering, Accounting, Research Management, and Related
 - except: 8732 Commercial Non-Physical Research
 - 8733 Noncommercial Research
 - 8734 Testing Labs

IX. NON-MANUFACTURING, FOOD

- 514 Groceries and Related Products
- 5153 Farm Products (raw materials, grain, and field beans)
- 5159 Farm Products (raw materials)
- 54 Food Stores
- 58 Eating and Drinking Places
- 7996 Amusement Parks

X. PLACES PEOPLE LIVE

- 70 Hotels, Rooming Houses, Camps
- 822 Colleges & Universities
- 9223 Correctional Institutions

XI. PATHOLOGICAL

- 074 Veterinary Services
- 7261 Personal Services (crematories and funeral services)
- 8422 Botanical and Zoological Gardens
- 80 Health Services
- 8732 Commercial Non-Physical Research
- 8733 Non-Commercial Research
- 8734 Testing Labs

XII. OIL AND GAS PRODUCTION

- 13 Oil and Gas Extraction
- 46 Pipelines (except natural gas)
- 492 Gas Production and Distribution

XIII. UTILITY - ELECTRIC

- 491 Electric Services
- 493 Combination Utility Services
- 496 Steam and Air Conditioning Supply

XIV. UTILITY - WATER

- 494 Water Supply
- 497 Irrigation Systems

XV. Sanitary Services

- 495 Sanitary Services

XVI. ESSENTIAL SERVICES

- 40 Railroad
- 41 Local, Suburban, Interurban Highway Transportation
- 42 Meter Freight Transportation and Warehousing
- 43 Postal Services
- 44 Water Transportation
- 45 Transportation by Air
- 47 Transportation Services
- 48 Communications

- XVII. 10 Metal Mining
- 12 Coal Mining

- XVIII. 14 Mining and Quarrying of Nonmetallic Minerals
(except fuels)

- XIX. 20 Food and Kindred Products
- 21 Tobacco Products

- XX. 26 Paper and Allied Products

- XXI. 27 Printing and Publishing and Allied Industries

- XXII. 28 Chemicals and Allied Products

- XXIII. 29 Petroleum Refining and Related Industries

- XXIV. 30 Rubber and Miscellaneous Plastics Products

- XXV. 31 Leather and Leather Products

- XXVI. 32 Stone, Clay, Glass, and Concrete Products

- XXVII. 33 Primary Metal Industries

XXVIII. GOVERNMENT

- 91 Legislative, Executive, and General Government
except: Finance
- 92 Justice, Public Order and Safety
except: 9223 Correctional Facilities
- 93 Public Finance, Taxation, Monetary Policy
- 94 Administration of Human Resource Programs
- 95 Administration of Environmental Quality and
Housing
- 96 Administration of Economic Programs
- 97 National Security and International Affairs

Attachment 7: Scope Subgroup Recommendations

DRAFT

MEMORANDUM

To: Incinerator Work Group

From: Scope Subgroup (Tony Licata, Jeff Shumaker, George Smith, and Bill Wiley)

Date: March 11, 1997

Subject: Preliminary Prioritization of Units in the Incinerator Source Category of the ICCR

Introduction

The Incinerator Work Group must define its scope of work for the incinerator source category and in recommending regulations for the Industrial Combustion Coordinated Rulemaking (ICCR). To aid in this task, the Incinerator Work Group formed a Scope Subgroup to document priorities and the arguments for those units that should be of lower priority or should be recommended to EPA for consideration under other rulemakings.

The Scope Subgroup, in defining the scope of the incinerator category in the ICCR, has identified a number of issues and has drafted preliminary recommendations on what the Incinerator Work Group's focus should be in completing its ICCR responsibilities. The issues identified include the following:

1. Consideration of whether emissions from combustion of process gas, in the event that EPA concludes that "uncontained gas" (i.e., process gases not contained in cylinders) does not fall within the definition of "solid waste" (thereby removing them from consideration for regulation under section 129), is a priority issue for the ICCR
2. Consideration of flares, fume incinerators, and "in-process" incinerators in the ICCR; and
3. Selection of a incinerator size threshold for data gathering.

Background Information

Fume Incinerators and Flares: Fume incinerators are a class of equipment that includes generic terms such as afterburners, thermal incinerators, catalytic afterburners, and thermal oxidizers. Similar to flaring, the fume incineration process is most often used to control the emissions of hydrocarbons from process industries. With adequate combustion high temperature, residence time, and mixing hydrocarbons are oxidized to carbon dioxide and water vapor. Both flaring and incineration are common combustion techniques used to control emissions from industrial processes and, when used properly, can reduce total organic compounds by 98% or more.

In the *Air Pollution Engineering Manual* (AP-40) published by the U.S. EPA in May 1973, the authors list afterburners in Chapter 5 as “Control Equipment for Gases and Vapors.” In Chapter 2 of another book with the same title, *Air Pollution Engineering Manual*, published by the Air & Waste Management Association in 1992, incineration is listed as a control technique⁶.

Combustion is a straightforward and highly effective means of eliminating organic gases. The process can be complicated, however, by the presence of halogenated or inorganic compounds (e.g., chlorinated hydrocarbons or metals). In such an instance complete combustion requires higher temperatures, longer residence times, and a greater mixing. Incomplete combustion can result in emission of HAPs.

Section 129 of the Clean Air Act: The section 129 authority is limited to combustion of “solid waste.” Consequently, regulation of fume incinerators and flares under section 129 is only appropriate to the extent that “uncontained” process gases are included in the definition of “solid waste.” EPA’s definition of “solid waste” is under review, and, based on preliminary indications, it is anticipated that the only gases that will be considered “solid waste” are those gases contained in gas cylinders or other, similar containers. Clarification of the definition of “solid waste” in this manner would exclude fumes, vent gases, and other process gases conveyed to flares or fume incinerators in pipes or ducts. However, it should be noted that regulation of flaring and fume

⁶Copies of both of these references will be mailed to George Smith for distribution to the Work Group.

incineration can be listed for consideration of HAP emissions under section 112, regardless of EPA's definition of "solid waste."

Landfill Gas: During the anaerobic degradation of materials in MSW landfills, gases are evolved. Gas from MSW landfills can have adverse effects on both public health and welfare. Among the concerns are the gases' contribution to ozone formation, suspected carcinogenic activity, odor nuisance, threat of fire and explosion, and contribution to global climate change. A summary of landfill waste gas characteristics, compiled from source test reports, is available in section 2.4 of EPA's AP-42 Emission Factor document. Included as attachments are copies of table 2.4-1, which characterize uncontrolled landfill gas constituents, and table 2.4-3, which lists average control device efficiencies for landfill gas combusted in internal combustion engines, turbines, and flares.

Without air emission controls, gas from MSW landfills would escape into the ambient air as fugitive emissions. To mitigate the problems posed by landfill gas, EPA has required that an overhead collection system be installed and operated to collect gas from large MSW landfills. A device capable of reducing non-methane organic compounds (NMOC) in the collected gas by 98 weight-percent must also be installed and operated in conjunction with the landfill gas collection system. The level of control required for sources is based on landfill size, NMOC emission rate, and dates of operation and/or closure.

The level of control required for landfill gas at MSW landfills (i.e., 98 weight-percent reduction in NMOC) is based on the installation and operation of a flare meeting design and operating specifications in the NSPS General Provisions (see 40 CFR 60.18). Alternative control through combustion of the gas in other combustion equipment (e.g., an internal combustion engine or a stationary combustion turbine) is acceptable provided that equivalent emission control is demonstrated. Data have been compiled in AP-42 that demonstrate the equivalency of engines and turbines to flares (see attachments); however, some of the control efficiency data has been assigned a lower data quality ranking. Secondary impacts of combustion devices (e.g., NO_x and CO emissions) were considered during regulatory development and found to be low relative to the benefits of reduction in NMOC and methane emissions (61 FR 9909).

Flares and other combustion equipment used to control landfill gas can significantly reduce “greenhouse gases,” help to prevent landfill explosions, and are the only proven emission control technologies for use at landfills at this time. However, data have been published that report dioxin and other HAP emissions in the combustion exhaust from flares, internal combustion engines, boilers, and other combustion equipment burning landfill gas⁷. The issue results from the potential presence of halogenated and/or metallic compounds in landfill gases, which can result in HAP emissions upon combustion. Potential for release of HAPs makes landfill gas combustion a concern, particularly since 66% of all municipal waste in the United States is currently landfilled.

Findings and Recommendations about the Scope of the Incinerator Source Category

With regard to the three issues listed on page 1 of this memorandum, the following recommendations are made:

- 1-A. The subgroup anticipates exclusion by EPA of “uncontained” process gases from the definition of “solid waste” and, therefore, regulation under section 129. These gases, which could be considered for regulation under section 112, should be prioritized in the ICCR as discussed in recommendation 1-B.
- 1-B. With regard to the information collection questionnaire being developed for the ICCR, the subgroup recommends that only facilities with units that burn halogenated and/or metallic compounds be a priority in the ICCR and be selected as survey recipients. Based on their “cleaner-burning” waste streams, the subgroup recommends that facilities which burn pure hydrocarbon streams be assigned a lower priority in the ICCR and not be the subject of immediate information collection. At this time, only combustion of landfill gas has been identified as a priority issue and should be considered in current survey efforts.
- 2-A. To address the requirements of section 112, the subgroup recommends that flares and fume incinerators be designated for priority consideration only if they are combusting waste streams containing halogenated and/or metallic compounds. At this time, only landfill flares/fume incinerators are being recommended for priority consideration. Make reference to §112 (for “uncontained” gas).

⁷A copy of a paper co-authored by Tony Licata related to landfill emission has been sent to George Smith as a reference.

- 2-B. The subgroup recommends that categories of units that conduct “in-process” combustion to purify a product, rather than reduce waste volume, be assigned a lower priority in the ICCR. The Work Group may recommend that these units be considered by EPA for regulation under a separate rulemaking. Examples of such units include wire burners and drum reclaimers.
3. The subgroup recommends that an incinerator size threshold not be established as a means of limiting the scope of information collected. Because limited air emission data are currently available and the size distribution of the incinerator population has not been characterized, no basis for a size cut-off has been identified. The subgroup believes that the consideration of a size threshold should be postponed until after data on incinerators are collected.

These minutes represent an accurate description of matters discussed and conclusions reached and include a copy of all reports received, issued, or approved at the March 11, 1997, meeting of the Incinerator Work Group. George Smith, EPA Co-chair.

Attachment 1: Table 2.4-1. UNCONTROLLED LANDFILL GAS CONCENTRATIONS^a

Compound	Molecular Weight	Median ppmv	EMISSION FACTOR RATING
1,1,1-Trichloroethane (methyl chloroform)*	133.42	0.27	B
1,1,2,2-Tetrachloroethane*	167.85	0.20	C
1,1,2-Trichloroethane*	133.42	0.10	E
1,1-Dichloroethane (ethylidene dichloride)*	98.95	2.07	B
1,1-Dichloroethene (vinylidene chloride)*	96.94	0.22	B
1,2-Dichloroethane (ethylene dichloride)*	98.96	0.79	B
1,2-Dichloropropane (propylene dichloride)*	112.98	0.17	C
Acetone	58.08	6.89	B
Acrylonitrile*	53.06	7.56	D
Bromodichloromethane	163.87	2.06	C
Butane	58.12	3.83	B
Carbon disulfide*	76.13	1.00	E
Carbon monoxide	28.01	309.32	C
Carbon tetrachloride*	153.84	0.00	B
Carbonyl sulfide*	60.07	24.00	E
Chlorobenzene*	112.56	0.20	D
Chlorodifluoromethane	67.47	1.22	B
Chloroethane (ethyl chloride)*	64.52	1.17	B
Chloroform*	119.39	0.27	B
Chloromethane	50.49	1.14	B
Dichlorodifluoromethane	120.91	12.17	B
Dichlorofluoromethane	102.92	4.37	C
Dichloromethane (methylene chloride)*	84.94	14.30	C
Dimethyl sulfide (methyl sulfide)	62.13	76.16	B
Ethane	30.07	227.65	D
Ethyl mercaptan (ethanethiol)	62.13	0.86	C
Ethyl benzene*	106.16	4.49	B
Fluorotrichloromethane	137.38	0.73	B

Compound	Molecular Weight	Median ppmv	EMISSION FACTOR RATING
Hexane*	86.17	6.64	B
Hydrogen sulfide	34.08	36.51	B
Methyl ethyl ketone*	72.10	6.13	B
Methyl isobutyl ketone*	100.16	1.22	B
Methyl mercaptan	48.10	10.43	B
NMOC (as hexane)	86.17	1170	D
Pentane	72.15	3.32	B
Perchloroethylene (tetrachloroethylene)*	165.83	3.44	B
Propane	44.09	10.60	B
Trichloroethylene*	131.40	2.08	B
t-1,2-Dichloroethene	96.94	4.01	B
Vinyl chloride*	62.50	7.37	B
Xylene*	106.16	12.25	B

^a AP-42, Chapter 2, Section 4, References 9-35 (see Attachment 3);
Source Classification Code 5-02-006-02.

* = Hazardous air pollutants listed in the *Clean Air Act*.

Attachment 2: Table 2.4-3. CONTROL EFFICIENCIES FOR LANDFILL GAS CONSTITUENTS^a

Control Device	Compound	Average Control Efficiency	EMISSION FACTOR RATING
IC Engine (no SCC)	Benzene*	83.83	E
	Trichloroethylene*	89.60	E
	Perchloroethylene*	89.41	E
	NMOCs (as hexane*)	79.75	E
	1,1,1-Trichloroethane*	92.47	E
	Chloroform*	99.00	E
	Toluene*	79.71	E
	Carbon tetrachloride*	98.50	E
Turbine (no SCC)	Perchloroethylene*	99.97	E
	Toluene*	99.91	E
	1,1,1-Trichloroethane*	95.18	E
	Trichloroethylene*	99.92	E
	Vinyl chloride*	98.00	E
Flare (5-02-006-01) (5-03-006-01)	Chloroform*	93.04	D
	Perchloroethylene*	85.02	C
	Toluene*	93.55	C
	Xylene*	99.28	E
	1,1,1-Trichloroethane*	85.24	C
	1,2-Dichloroethane*	88.68	E
	Benzene*	89.50	C
	Carbon tetrachloride*	95.05	D
	Methylene chloride*	97.60	E
	NMOCs (as hexane*)	83.16	E
	Trichloroethylene*	96.20	C
	t-1,2-Dichloroethene*	99.59	E
	Vinyl chloride*	97.61	C

^a AP-42, Chapter 2, Section 4, References 9-35 (see Attachment 3);
Source Classification Code in parentheses.

* = Hazardous air pollutant listed in the *Clean Air Act*.

Attachment 3: References from AP-42, Chapter 2, Section 4

- 9. A. R. Chowdhury, Emissions From A Landfill Gas-Fired Turbine/Generator Set. Source Test Report C-84-33. Los Angeles County Sanitation District, South Coast Air Quality Management District, June 28, 1984.*
- 10. Engineering-Science, Inc., Report Of Stack Testing At County Sanitation District Los Angeles Puente Hills Landfill. Los Angeles County Sanitation District, August 15, 1984.*
- 11. J. R. Manker, Vinyl Chloride (And Other Organic Compounds) Content Of Landfill Gas Vented To An Inoperative Flare, Source Test Report 84-496. David Price Company, South Coast Air Quality Management District, November 30, 1984.*
- 12. S. Mainoff, Landfill Gas Composition, Source Test Report 85-102. Bradley Pit Landfill, South Coast Air Quality Management District, May 22, 1985.*
- 13. J. Littman, Vinyl Chloride And Other Selected Compounds Present In A Landfill Gas Collection System Prior To And After Flaring, Source Test Report 85-369. Los Angeles County Sanitation District, South Coast Air Quality Management District, October 9, 1985.*
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- 15. S. Marinoff, Emissions From A Landfill Gas Collection System, Source Test Report 85-511. Sheldon Street Landfill, South Coast Air Quality Management District, December 9, 1985.*
- 16. W. A. Nakagawa, Vinyl Chloride And Other Selected Compounds Present In A Landfill Gas Collection System Prior To And After Flaring, Source Test Report 85-592. Mission Canyon Landfill, Los Angeles County Sanitation District, South Coast Air Quality Management District, January 16, 1986.*
- 17. California Air Resources Board, Evaluation Test On A Landfill Gas-Fired Flare At The BBK Landfill Facility. West Covina, California, ARB-SS-87-09, July 1986.*
- 18. S. Marinoff, Gaseous Composition From A Landfill Gas Collection System And Flare, Source Test Report 86-0342. Syufy Enterprises, South Coast Air Quality Management District, August 21, 1986.*
- 19. Analytical Laboratory Report For Source Test. Azusa Land Reclamation, June 30, 1983, South Coast Air Quality Management District.*
- 20. J. R. Manker, Source Test Report C-84-202. Bradley Pit Landfill, South Coast Air Quality Management District, May 25, 1984.*

21. *S. Marinoff, Source Test Report 84-315. Puente Hills Landfill, South Coast Air Quality Management District, February 6, 1985.*
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23. *S. Marinoff, Source Test Report 84-373. Los Angeles By-Products, South Coast Air Quality Management District, March 27, 1985.*
24. *J. Littman, Source Test Report 85-403. Palos Verdes Landfill, South Coast Air Quality Management District, September 25, 1985.*
25. *S. Marinoff, Source Test Report 86-0234. Pacific Lighting Energy Systems, South Coast Air Quality Management District, July 16, 1986.*
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27. *D. L. Campbell, et al., Analysis Of Factors Affecting Methane Gas Recovery From Six Landfills. Air And Energy Engineering Research Laboratory, U. S. Environmental Protection Agency, Research Triangle Park, North Carolina. EPA-600/2-91-055. September 1991.*
28. *Browning-Ferris Industries, Source Test Report. Lyon Development Landfill, August 21, 1990.*
29. *X. V. Via, Source Test Report. Browning-Ferris Industries. Azusa Landfill.*
30. *M. Nourot, Gaseous Composition From A Landfill Gas Collection System And Flare Outlet. Laidlaw Gas Recovery Systems, to J. R. Farmer, OAQPS, ESD, December 8, 1987.*
31. *D. A. Stringham and W. H. Wolfe, Waste Management Of North America, Inc., to J. R. Farmer, OAQPS, ESD, January 29, 1988, Response To Section 114 questionnaire.*
32. *V. Espinosa, Source Test Report 87-0318. Los Angeles County Sanitation District Calabasas Landfill, South Coast Air Quality Management District, December 16, 1987.*
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34. *V. Espinosa, Source Test Report 87-0391. Puente Hills Landfill, South Coast Air Quality Management District, February 5, 1988.*
35. *V. Espinosa, Source Test Report 87-0376. Palos Verdes Landfill, South Coast Air Quality Management District, February 9, 1987.*

Attachment 4: AP-42 Data and Factor Quality Ratings

Where possible, each emission factor is given a rating from A through E, with A being the best. In some cases, a U for "unratable" is assigned. A factor's rating is a general indication of the reliability, or robustness, of that factor. This rating is assigned based on the estimated reliability of the tests used to develop the factor and on both the amount and the representative characteristics of those data. In general, factors based on many observations, or on more widely accepted test procedures, are assigned higher rankings. Conversely, a factor based on a single observation of questionable quality, or one extrapolated from another factor for a similar process, would probably be rated much lower. Because ratings are subjective and only indirectly consider the inherent scatter among the data used to calculate factors, the ratings should be seen only as approximations. Factor ratings do not imply statistical error bounds or confidence intervals about each emission factor. At most, a rating should be considered an indicator of the accuracy and precision of a given factor being used to estimate emissions from a large number of sources. This indicator is largely a reflection of the professional judgment of authors and reviewers concerning the reliability of any estimates derived with these factors.

Because emission factors can be based on source tests, mass balance, or other information, factor ratings can vary greatly. Some factors have been through more rigorous quality assurance than others. It should be noted that some source categories (particularly some area sources) are not conducive to conventional source testing and, therefore, their data cannot be rated according to the rating procedure. In those cases, qualified engineering judgment should supersede the rating protocol, and ratings should be assigned accordingly.

Two steps are involved in factor rating determination. The first step is an appraisal of data quality, the reliability of the basic emission data that will be used to develop the factor. The second step is an appraisal of the ability of the factor to stand as a national annual average emission factor for that source activity.

Test data quality is rated A through D, and ratings are thus assigned:

- A = Tests are performed by a sound methodology and are reported in enough detail for adequate validation.
- B = Tests are performed by a generally sound methodology, but lacking enough detail for adequate validation.
- C = Tests are based on an unproven or new methodology, or are lacking a significant amount of background information.
- D = Tests are based on a generally unacceptable method, but the method may provide an order-of-magnitude value for the source.

The quality rating of test data helps identify good data, even when it is not possible to extract a factor representative of a typical source in the category from those data. For example, the data from a given test may be good enough for a data quality rating of "A," but the test may be for a unique feed material, or the production specifications may be either more or less stringent than at the typical facility.

In following the general guidelines discussed above, four specific criteria can be considered to evaluate the emission data to ensure that the data are based on a sound methodology, and documentation provides adequate detail. A test series is initially rated "A through D" in each of the following four areas.

- Source operation. If the manner in which the source was operated is well documented in the report, and the source was operating within typical parameters during the test, an A rating should be assigned. If the report stated parameters were typical, but lacked detailed information, a B rating is assigned. If there is reason to believe operation was not typical, a C or D rating is assigned.
- Test method and sampling procedures. In developing ratings, the accuracy of the test method as well as the adequacy of the documentation are considered. In general, if an EPA method is followed, the rating should be higher (A or B). If other methods are used, an assessment is made of their validity. If it is judged that the method was likely to be inaccurate or biased, a lower rating (C or D) is given. A complete report should indicate whether any procedures deviated from standard methods and explain any deviations. If deviations were reported, an evaluation is made of whether these were likely to influence the test results.
- Sampling and process data. During testing, many variations can occur without warning and sometimes without being noticed. Such variations can induce wide deviations in sampling results. If a large spread between test results cannot be explained by information contained in the test report, the data are suspect and are given a lower rating. As a general guide, if the emissions data for individual test runs differ from the average by less than 50 percent, an A rating is assigned for this criteria. If they differ by more than 50 percent, quality is reduced to a B, C, or D rating. The greater the unexplained deviation, the lower the rating.
- Analysis and calculations. Ideally, test reports should contain original raw data sheets. If there are data sheets, the nomenclature and equations used are compared with those specified by EPA to establish equivalency. The depth of review of the calculations is dictated by the reviewers' confidence in the ability and conscientiousness of the tester, based on such factors as consistency of results and completeness of other areas of the test report. Reports may indicate that raw data sheets were available but were not

included. If the test report is of high quality based on the other criteria, the quality rating should not be lowered due to a lack of data sheets.

An overall emission data quality rating is developed considering the scores on the four criteria. There is no precise equation for the relative weighing of the factors, because each report presents different issues, and the rating system needs to provide flexibility to consider the strengths and weaknesses of each test series and reach a judgment on the overall rating. However, the two criteria concerning (1) the test method and sampling procedures and (2) the sampling and process data should be weighted most heavily. If either of these two criteria are assigned a low rating, this low rating should be assigned as the overall data quality rating, no matter how complete the documentation is. Because ratings are somewhat subjective, comments describing the rationale should be included on data quality rating sheets.

After assigning a preliminary emission data quality rating based on the four criteria, the quality of the production data is considered. It appears that production data quality can only negatively affect the overall emission data quality rating. Based on the various types of production data used in developing emission factors, general guidelines for maintaining or reducing the preliminary quality rating of the emission data for the final data rating are described below. Characteristics of the production data are defined in such a way that the emission data rating can be lowered by as many as three quality levels. However, if the emission data quality is already low (e.g., had a C rating) and cannot be lowered two or three levels, then the final data can be assigned a D rating. This approach is reasonable because the D rating is understood to be reflective of data that may be in error by an order of magnitude. The alternative approach is to omit the data from consideration altogether. The guidelines for reviewing production data and assigning final data quality ratings are the following:

- Do not change preliminary emission data quality rating if production data represent production measured during the actual test series or during the testing period. If measured during the testing period but not during the test series, an assumption is made that the facility continued to operate at the same capacity throughout the test period.
- Reduce quality rating to one level below preliminary emission data rating (but no lower than a D rating) if production data represent production measured during a different test period, and validation is made that the facility was operated at the same capacity during both test periods.
- Reduce quality rating to two levels below preliminary emission data rating (but no lower than a D rating) if production data are based on annual capacity or annual production data, and the facility provides information concerning the capacity at which the facility operated during the test period and the number of days per year that the facility operated.

- Reduce quality rating to a D rating if production data are based on annual capacity or annual production data, and it is necessary to make assumptions that are not confirmed by the facility concerning the capacity at which the facility operated during the test period and the number of days per year that the facility operated.

The emission factor rating is an overall assessment of how good a factor is, based on both the quality of the test(s) or information that is the source of the factor and on how well the factor represents the emission source. Higher ratings are for factors based on many unbiased observations, or on widely accepted test procedures. For example, ten or more source tests on different randomly selected plants would likely be assigned an "A" rating if all tests are conducted using a single valid reference measurement method. Likewise, a single observation based on questionable methods of testing would be assigned an "E," and a factor extrapolated from higher-rated factors for similar processes would be assigned a "D" or an "E."

Emission factor quality ratings are thus assigned:

- A - Excellent. Factor is developed from A- and B-rated source test data taken from many randomly chosen facilities in the industry population. The source category population is sufficiently specific to minimize variability.
- B - Above average. Factor is developed from A- or B-rated test data from a "reasonable number" of facilities. Although no specific bias is evident, is not clear if the facilities tested represent a random sample of the industry. As with an A rating, the source category population is sufficiently specific to minimize variability.
- C - Average. Factor is developed from A-, B-, and/or C-rated test data from a reasonable number of facilities. Although no specific bias is evident, it is not clear if the facilities tested represent a random sample of the industry. As with the A rating, the source category population is sufficiently specific to minimize variability.
- D - Below average. Factor is developed from A-, B- and/or C-rated test data from a small number of facilities, and there may be reason to suspect that these facilities do not represent a random sample of the industry. There also may be evidence of variability within the source population.
- E - Poor. Factor is developed from C- and D-rated test data, and there may be reason to suspect that the facilities tested do not represent a random sample of the industry. There also may be evidence of variability within the source category population.
- U - Unratable. Factor is developed from research papers, modeling data, or other sources that may lack supporting documentation. The data are not necessarily

"poor," but there is not enough information to rate the factors according to the rating protocol. "U" ratings are commonly found in L&E documents and FIRE rather than in AP-42.

In assigning factor quality ratings, a few general procedures can be followed. For example, if any C- or D-rated test data are used, the emission factor is automatically rated E. If A- or B-rated test data are used, but there is only one data point (i.e., an emission factor from only one test series), this factor is used and given a D rating. If there are two A- or B-rated factors from two test series, a rating of C is usually given, unless there is reason to believe the data are biased or not representative. If only A-rated test data are used, and there are more than two data points, a rating of A or B can be given to the factor.

In determining the ratings, the representativeness of test data can be assessed by considering the percent of national capacity, number of facilities, and number of companies for which data are available. Generally, data are considered to provide a reasonable representation of the industry and can be rated A if test data are available for: (1) more than 10 percent of the national capacity, (2) more than 10 percent of the number of facilities using a process, and (3) at least three companies. If these criteria are not met, the rating is usually reduced. If data are available for less than three companies, the rating can be no higher than a B unless the total industry population being represented consists of three or fewer companies.

The variability of the data points (i.e., the individual emission factors for each test series) from the average factor can also be assessed. However, the variability of the data points can only defensibly be used to reduce the final emission factor rating if the population of facilities tested, from which the group of individual emission factors (i.e., data points) originated, is considered representative of the total industry population (i.e., the final emission factor is considered A-rated before assessing variability).

As with data quality ratings, emission factor ratings are somewhat subjective, and in some cases, there may be reason to differ from the general procedures described above.

Attachment 8: Presentation Material about Categories of Incinerators in the ICCR Database

The documents distributed in conjunction with this presentation are not available electronically in WordPerfect format. However, Microsoft Excel files containing this information are available off the Incinerator Work Group bulletin board on the TTN. Hard copies are also available from the EPA docket. The presentation materials not reproduced in this file include the following:

- the prioritization tables (i.e., "Yes," "No," "Maybe," and "Unknown") in the file YES-NO.XLS;
- presentation graphs in the file titled GRAPHS.XLS; and
- the SCC grouping list in the file titled SCCGROUP.XLS.